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BOWMAN'S-WEITZMAN'S

Manual of Musical Theory.

A CONCISE, COMPREHENSIVE AND PRACTICAL TEXT-BOOK ON THE

SCIENCE OF MUSIC,

PREPARED AND EDITED WITH THE APPROVAL AND PERMISSION
OF THE AUTHOR,

CARL FRIEDERICH WEITZMAN,

BY HIS PUPIL,

E. M. BOWMAN.

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Der Herausgeber dieses Handbuchs der Harmonielehre, E. M. Bowman, veröffentlicht in demselben seine bei mir in diesem Zweige der Tonkunst gemachten Studien, mit gewissenhafter Wiedergabe der von mir aufgestellten Grundsätze und Lehrsätze. Der darin befolgte Lehrgang, die Kürze und zugleich das Umfassende der aufgestellten Regeln, die stete Verbindung des Praktischen mit dem Theoretischen, ist die Frucht einer von mir durch ausgedehnten Privatunterricht und Unterricht in Conservatorien der Musik gewonnenen Erfahrung.

Möge dies, vom Herausgeber überaus sorgfältig bearbeitete Handbuch, von den Kunstjüngern Amerikas günstig aufgenommen und mit Erfolg studirt werden.

Berlin 1876. C. F. Weitzman.

TRANSLATION.

The Editor of this Manual of Harmony, E. M. Bowman, publishes in the same his studies with me in this branch of musical art, together with an almost literal repetition of my established maxims and theorems.

The course of instruction contained therein, the conciseness and, at the same time, the comprehensiveness of the presented rules, and the continuous alliance of the practical with the theoretical, is the fruit of experience won through extended private instruction and instruction in Conservatories of Music.

May this, by its Editor, carefully prepared Manual be kindly received and successfully studied by the students of musical art in America.

C. F. Weitzman.

Berlin 1876.

EDITOR'S PREFACE.

Having finished my course of study with the distinguished originator of the accompanying method of instruction, I became thoroughly convinced that it was the duty of some one to permanently record its valuable theorems, maxims and modes of explanation for the benefit of not only all such as could not enjoy the personal tutorship of the author, but also for the benefit of that large number who, though having studied with him, have as yet no orderly, condensed manual of his system for reference or guidance in their own teaching.

Urged by my revered master and fortified by his promise of assistance, I consented to undertake that which should have been the work of the author himself, and doubtless would have been, but for lack of opportunity formerly, coupled with enfeebled health in later years, and, mayhap, a want of appreciation for the production of his own brain, the result, let me add, of remarkable abilities and a life-long devotion to this particular branch of musical art.

Thus, honored with the trust, I addressed myself during another season to the work of taking notes, amplifying and revising page by page, under the author's kindly guidance, until at length the manuscript received the approval and indorsement set forth in the foregoing certificate. Since my return to America, I have rewritten the entire work in order to still farther amplify or eliminate in parts which seemed to me to need it, and especially to improve its diction. In this latter respect, I have striven to avoid the high-sounding words, long, complicated sentences and obscure examples which too often cripple, by their vagueness, the very best intentions of theoretical writers. How far success has been attained in securing simplicity for these, the parts in this manual for which I alone must be responsible, is yet problematical, but the course of instruction, rules and devices for explanation, the parts which originate with Professor Weitzmann, these have been a proven success for years. They are, however, now presented for the first time, in any language, in the form of a text-book.

Every one, applying himself or herself to the study of instrumental or vocal music, ought, most assuredly, to acquire a certain

degree of theoretical knowledge. It has, therefore, been the endeavor, commencing with the very generation of sound, to embody in one volume all the theoretical education that the student of music can require to enable him to correctly express his own musical ideas, to guide others in like attempts, and to discriminate between good and bad compositions.

In its mechanical design, the work is divided into four parts covering forty chapters, a brief epitome of which may not be *mal apropos* at this point.

PART I. Elementary.

In this part will be found all that is necessary in the way of rudimentary instruction preparatory to the study of Harmony. A new departure is taken in the classification and inversion of intervals (Chapters II and III) which will be welcome to all unprejudiced minds appreciating system and simplicity.

PART II. Harmony.

The first half of this department, ending with Chapter XXIII, treats thoroughly of triads. Beginning with their origin, it traces their use gradually up through the formation of modes (IV); simple triad-succession within the circle of a single mode (XIV); employment in cadences (XV); in modulation to near-related keys (XVI); then to keys more distantly related (XVII); next in successions not common to the same mode (XVIII); of dissonant triads (XIX), and finally their use in the harmonization of a given melody (XXIII).

The triad is the fundamental harmony. All other tone-combinations whatsoever, are derived from, and must finally return to it.

A solid sub-structure, formed through thorough practice in triad-succession alone, is one of the salient features of the Weitzmann system. This is the gradually developed central idea of Part II up to Chapter XXIII, with deviations here and there to the accompanying subjects of Melody, Meter, Rhythm, etc.

A substantial foundation having been laid, the superstructure is next in order. Accordingly, in the last half of this department, the derivative chords are treated of: Suspensions (XXIII); Chords of the Seventh (XXIV–XXXI); the so-called Chords of the Ninth, Eleventh, and Thirteenth (XXXII); and Altered Accords (XXXIII).

Attention is directed to the new and original method of explaining and testing the resolution of dissonant chords. Its full text will be found in Chapter XXVIII. The so-called Chords of the Ninth, Eleventh, and Thirteenth are presented in a light which will make their comprehension and treatment far less complicated than hitherto.

PART III. Simple Counterpoint.

In this department it has been the design to treat of the *melodic* phase of harmonic composition. To this end, although not counterpoint in its literal meaning, it has been deemed proper to begin with the development of a single voice (XXXIV); then, as an adjunct, a few hints have been inserted in regard to accompaniment forms. Succeeding this will be found (XXXV) the contrapuntal treatment of two voices; then three (XXXVI); four (XXXVII); and more than four (XXXVIII).

It has been considered most expedient to enter this field only so far as is comprehended under the term Simple Counterpoint. When the demand in this country for works on Double Counterpoint, Canon, Fugue etc., shall warrant it, this department will very probably be enlarged by the remainder of Weitzman's very original and valuable course of study in these higher branches.

PART IV. Composition.

This brief division gives an esthetical and technical synopsis of the acknowledged Forms of Composition, together with hints upon the modulation or changes of key to be employed.

In conclusion, conscious of having faithfully endeavored to discharge a pleasant duty toward my honored teacher,—to whom I here record my lasting gratitude,—as well as towards my fellow-countrymen, I beg for the Author of the principles and practice set forth in these pages the justly deserved praise of the entire musical world, and for their Editor its most kindly and considerate reception.

E. M. Bowman.

St. Louis, 1876.

PART I.

ELEMENTARY.

CHAPTER I.

MATERIAL OF MUSIC.

The material of music is sound, and sound is produced when an elastic resonant body is disturbed in such a manner as to cause that body to vibrate or oscillate rapidly, thus disturbing or oscillating the enveloping air, causing what are termed air-waves, which, in their increasing circles, like the waves caused by casting a stone into the water, reach the tympanum of the ear, where this vibratory motion is caught up by the nerves of hearing and transmitted to the brain.

If these vibrations follow each other with mathematical regularity, the sound is *musical; i. e.*, we can determine its pitch. Irregular vibrations produce simply noise.

From the mass of tones varying in pitch, such a number have been adopted as the Tonal System as are easily distinguishable to the ear, and as are, at the same time, of practical precision in performance. In the earlier attempts at the formation of a Tonal System, only those tones were fixed upon as comprise what are now termed Natural tones; *i. e.*, without flats or sharps, these being of later adoption. Thus, at first, the regular gradation of pitch or *scale* (from the latin and italian word *scala*, signifying *ladder*) consisted of steps* and half-steps.

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* The words *tone* and *semitone*, often used in the same sense, are an unfortunate designation, since *tone* can also refer, and more properly too, to both *pitch* and *quality* of musical sound, therefore the employment here of the terms *step* and *half-step*.

The proposition before us in the study of music in general, is the consideration of musical sounds or tones as members of a language, a language which speaks from soul to soul only; therefore, in order that a musical composition may be regarded as a work of art, it must possess an intelligible meaning as well as beauty of form.

These essential characteristics are to be gained, in instrumental compositions, through the artistic use of Melody, Harmony and Rhythm, and in vocal, through the appropriate union of these elements with words.

In the endeavor to reduce music to a *written* science, many and divers plans have been devised. It was remarked that the melodies of the people, or folk songs, especially those of the more civilized nations, moved in seven different principal tones, and that when this compass was exceeded the extra tones were but duplicates of some of the original seven, in a higher or lower pitch. Thus, the entire Tonal System was at length divided into groups of seven tones each, a name or designation applied, and the same repeated through each group.

By some nations, the first letters of the alphabet were applied, and by others, syllables. In accordance with other English text-books, the letters A, B, C, D, E, F, G, will be used in this work.

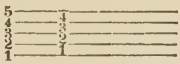
Between these, so to speak, fundamental tones, others existed which gradually came into *practical* use, thus necessitating definite names in the *written* system.

It was found most practical to consider these between-lying tones as *elevations* or *depressions* in pitch of the fundamentals; consequently, these added tones were indicated by the same letters, but were given certain additional signs to denote their difference. For example, if, instead of the original tone A, it was desired to indicate that tone lying next above; *i. e.*, between A and B, this sign (♯), called a Sharp, was applied, and the tone received the name A Sharp.

On the other hand, if that tone lying next below A was to be indicated, this sign (♭), called a Flat, was applied, and the tone thus taken was called A Flat. The process was made use of in connection with all the other original tones.

Later, other between-lying tones were added and were considered as *double* elevations or depressions of the originals, and to indicate the use of these a Double Sharp (×) or Double Flat (𝄫) was applied, and the tone thus taken was designated as A Double Sharp, B Double Flat, etc. To restore a tone, altered by any of these four methods, to its original name and sound, this sign (♮), called a Natural, was applied.

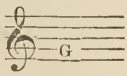
To indicate the relative acuteness or graveness, in one word, the *pitch* of the various tones, a system of five lines with their four intervening spaces,

1. 

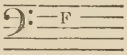
called a Staff, has come to be universally adopted, and upon these lines and in the spaces the signs of the tones are placed, thus representing or picturing to the eye, and thereby to the mind, the exact relative position or pitch of these tones. The staff contains nine tone-degrees, each line and each space constituting one such degree, all of which are numbered upward as seen in the above diagram (1). Should the tones be too high or too low to be written within the compass of the staff, temporary lines with their spaces, termed Leger lines and spaces, are used either above or below the staff,

2.

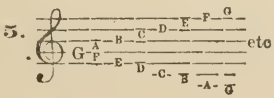
and upon these added staff-degrees, the signs of sound may be placed to either extreme of pitch, there being no prescribed limit to their use. To determine the names of the various staff-degrees, it is necessary to fix upon some one of them as a starting-point. This point is indicated by a character called a Clef (signifying *key*), and as the employment of only one clef would necessitate the use of a great number of leger lines in order to accommodate all the tones in the system, thus increasing the difficulty of reading music, it has been found advantageous to use several different clefs, though ordinarily for voices and most instruments there are only two. These are the G clef, which determines the second line of the staff as G,

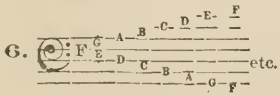
3. 

and the F clef, which fixes the fourth line of the staff as F.

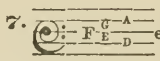
4. 

The name of the *point of departure* having been determined, those of the other staff-degrees at once become easy, inasmuch as the regular course of the alphabet is followed,—forward in ascending, backward in descending, for ex.:

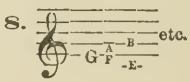
5. 

6. 

The F clef may also be so placed as to indicate the third line as F and the other degrees accordingly,

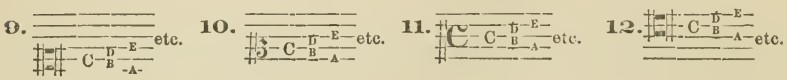


so also the G clef may be placed upon the first line, thus:



though this latter has become obsolete. The F clef upon the third line is also very rarely used.

There is a third character, termed the C clef, of various forms (♯𝄡♯ or ♯𝄡 or ♯𝄡 etc.), which can be placed on either the first, second, third or fourth line, in each case determining the name of the line upon which it rests as C, for ex.:—



Formerly the C clef was invariably used for various kinds of voices. Thus, parts written for Sopranos used this clef upon the first line, as at 9, those for Mezzo Sopranos upon the second line (10), for Altos, upon the third (11), and for Tenors upon the fourth (12).

Remark.—It should be understood that either form of the C clef, above used, is equally suitable to these four varieties of voice. We have used them all simply to show their application to the staff.

In this manner composers were enabled to express the compass of the different voices without the use of many leger lines, but, owing to the complexity of so many different systems, all except the G and F clefs have been practically abandoned in vocal music; the G clef upon the second line being used for the Soprano, Alto and generally the Tenor, and the F clef upon the fourth line for the Bass, and sometimes the Tenor.

TONE SIGNS.

Having learned that the staff is used upon which to place the signs of the tones, we come now to consider those signs. They are characters called Notes, which, by their *position*, high or low, upon the staff, indicate the *pitch* of the tones to be produced, and which, by their *form*, determine the *relative duration* of those tones.

These characters are as follows:—

13.

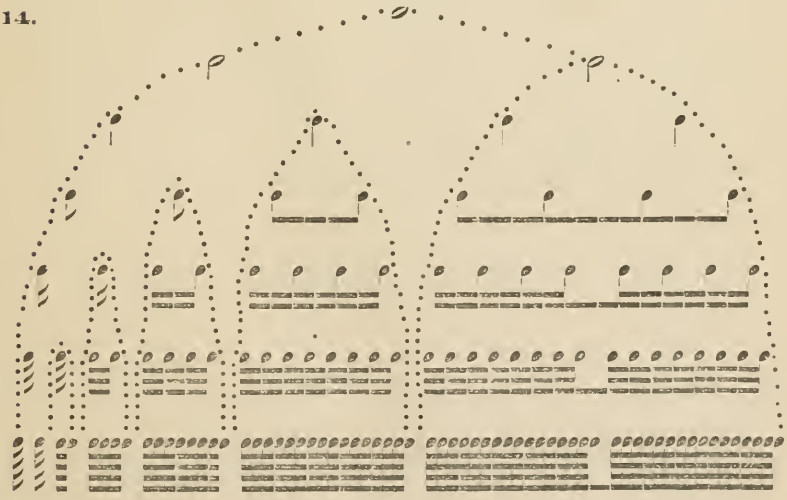
Whole note.	Half note.	Quarter.	Eighth.	Sixteenth.	Thirty-second	Sixty-fourth.
Semi-breve.	Minim.	Crotchet.	Quaver.	Semi-quaver.	Demi-semi-quaver.	Hemi-demi-semi-quaver.

The use of the designation, whole, half, etc., is recommended in preference to semi-breve etc., on account of its greater facility in making the relative values understood.

The Whole-note, in modern music, is regarded as the unit, occupying all of an allotted amount of time, while the Half, Quarter, etc., occupy the relative amount indicated by their names. In former times the Maxima (⊟) or Large; the Longa (⊟) or Long, and the Brevis (⊟) or Breve were in vogue, their value being respectively eight, four and two whole-notes. The first two are now obsolete, but the latter (⊟) is occasionally met with.

The relative value of the notes will be seen from the following table:

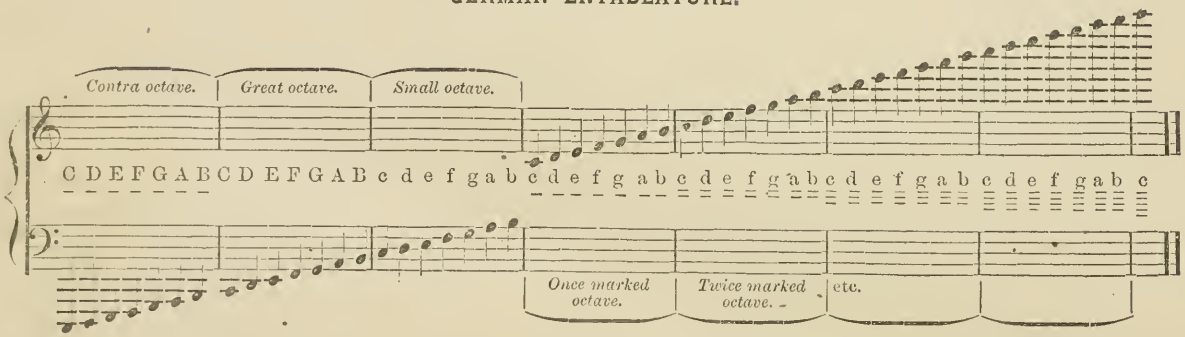
14.



The above table is so arranged in pyramids (see dotted lines, .·.·.), that a glance will be sufficient to learn the number of notes of any one kind which are equal to one of any other kind. The note at the apex of each pyramid is equal to either of the lines of notes underneath going to make up that pyramid.

The *form* of the notes being used to indicate the *duration* of the sounds, their *position upon the staff* will determine their *pitch*. We append here a table giving the absolute pitch of all the staff-degrees in a compass of seven octaves.

15. GERMAN ENTABLATURE.

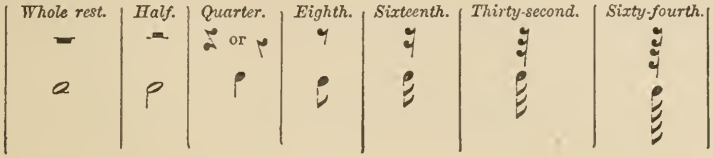


It will be observed that according to the above scheme, which is called the "German Entablature," any letter in any octave at will can be abstractly referred to. Thus, the lowest C would be referred to as the "Contra C," or sometimes the "once-marked Great Octave C." The Great and Small Octaves are so termed on account of the great and small letters used, and tones in those octaves are alluded to as the "Great Octave C, D," etc., or the "Small Octave c, d," etc. The tones in the next octave are spoken of as the "once marked c, d," etc., and so on, each octave having an additional mark.

RESTS. SIGNS OF SILENCE.

It being often desirable to suspend a sound for a greater or less length of time, signs of silence, called Rests, corresponding to the signs of sound or Notes, are employed. The following table exhibits the corresponding Notes and Rests:

16.

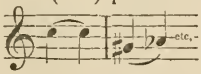


The relative valuation of the various rests is the same, of course, as that of notes.

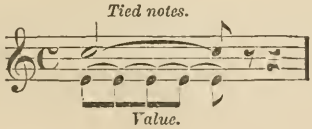
Remark.—The mode of indicating a rest for any desired length of time will be given further along.

PROLONGATION. TIE, DOT & PAUSE.

There are three ways of indicating the prolongation of a tone; *viz.*, by means of the Tie, Dot and Pause.

I. The Tie is a curved line (⁀) placed over or under two notes representing the *same pitch*, *e. g.*,  and indicates the articulation of but *one sound* equal to their united lengths. Thus, a half and an eighth-note connected by a tie would be sung or played as one sound, equal to the duration of five eighth-notes, for ex.:—

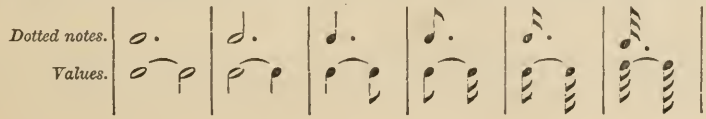
17.



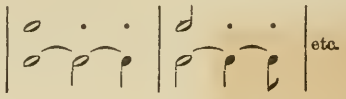
A tie can join only two notes, therefore a greater number of notes require a tie to each two, as above. Further, as a rule, the second note of a tie should not be longer than the first, as that causes a disagreeable halting effect, except where there are other parts or voices which may be so treated as to counteract it. (This will be more fully referred to at another place).

II. The Dot (•) is placed after a note and signifies an increase in the duration equal to one-half the value of that note. (See following table.)

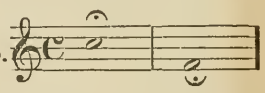
18.



Two or more dots may be used, each additional one adding one-half the value of the dot preceding it, for ex:—

19. 

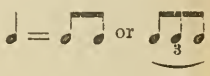
III. The Pause (𝄐) or Hold is placed over or under a note thus:

20. 

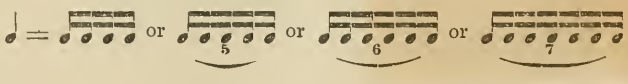
and signifies a continuation of the sound so long as the judgment of the performer may dictate.

DIMINUTION. TRIPLETS, &C.

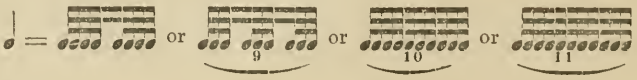
Any kind of a note may be divided into three equal parts instead of two; into five, six or seven instead of four; into nine, ten or eleven instead of eight, and so on. Thus, instead of dividing a quarter-note into two eighths, it may be divided into three, producing thereby what is called a Triplet, for ex.:—

21. 

Such groups are usually enclosed with a curved line and marked with the figure 3. So also, a quarter-note, ordinarily divided into four sixteenths, may be divided into five, six or seven sixteenths, so marked and called a Quintolet, Sextolet and Septolet respectively, thus:

22. 

A quarter note is equal to eight thirty-seconds; it may also be divided into nine, ten or eleven notes of the same denomination, thus:

23. 

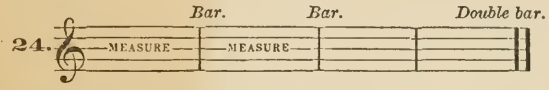
It is to be understood that it is not the *aggregate time* of a quarter, or any other chosen note, which is diminished, but rather the component parts which are derived from such a note, for if three notes are performed in the same time as two; five, six or seven in the same time as four, it follows that the time of each derivative note is *diminished* just in ratio to the increase in the number of notes derived.

MEASURES.

In order to render musical compositions intelligible, as well as to facilitate their reading and performance, it has been found necessary to divide them into short sections of *equal duration* called measures.

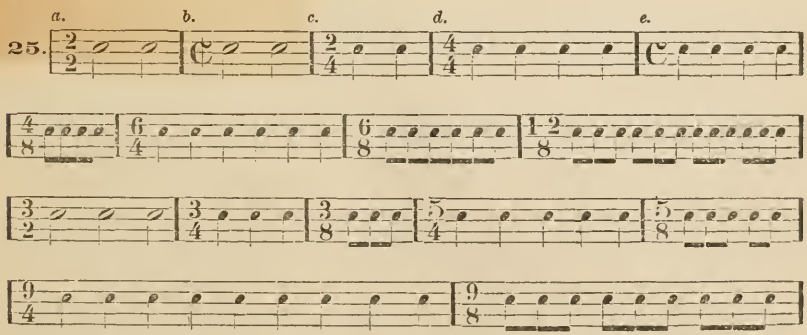
BARS. DOUBLE BARS.

To the ear, measures are indicated by regularly recurring accents, and to the eye, they are separated by a perpendicular line across the staff called a Bar. At the end of a composition or movement thereof; *i. e.*, a complete musical sentence, a Double Bar is placed. Ex.:—



METER. METRICAL DIVISIONS. TIME.

Measures are in their turn sub-divided into two, three, four or more *equal parts*, and the *regular succession* of these parts is called in music Meter. The parts themselves are denominated Metrical Divisions, and this measuring of sounds by means of measures, metrical divisions and notes is called Time. To indicate the number of metrical divisions which shall appear in a measure, and also the value of each division, two figures, in the form of a fraction, are placed at the beginning of the piece or movement. The upper figure, or numerator, denotes the *number of parts* in each measure, and the lower, or denominator, the *value* of each of those parts, by indicating into how many parts the unit of time (a whole-note) has been divided. Ex.:—



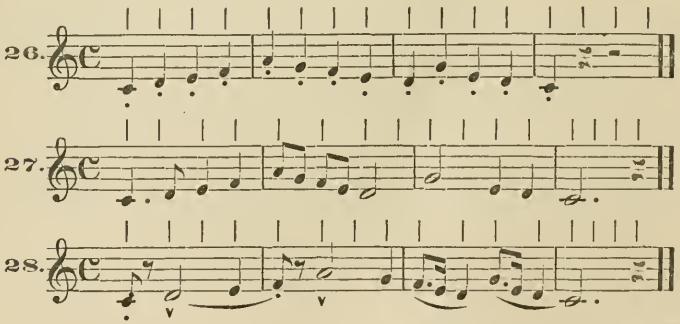
At *a* of Ex. 25, the numerator (2) shows that there are two parts or metrical divisions in each measure, and the denominator (2), showing the *value* of those divisions, denotes that the unit of time has been divided into two

parts; *i.e.*, into half-notes; therefore, where the figures are $\frac{2}{2}$ each measure must contain two half-notes or their equivalent. At *b*, the letter ₵ with a stroke through it indicates the same thing. At *c*, there are two quarter-notes in each measure; at *d*, four quarter-notes, and at *e* the same thing, and so on. We shall recur to this subject further along.

RHYTHM.

It will be remembered that the metrical divisions of a measure follow each other with mathematical regularity. It is not necessary, however, or advisable, that the succession of sounds shall always follow the meter, as that would be very monotonous, but, one sound may continue through several metrical parts, or several sounds may be given out during one such part, or rests of any length may occur.

This diversified manner of filling out the meter is called Rhythm. To illustrate this, we will take a series of notes in which the Rhythm and Meter move together, (see Ex. 26). Let the lines above the staff indicate the metrical succession in each of the three following examples.



Exs. 27 and 28 show the identical sounds used in Ex. 26 arranged in such a manner as to present some rhythmical divisions longer and some shorter than the metrical divisions. The character of the passage is quite different in each example, thus evidencing the wonderfully varied effect obtainable from a judicious use of this accessory of musical art.

TEMPO.

Of themselves notes have only a *relative* duration, therefore something more is necessary in order to fix the *standard* of time. The words *Grave*, *Largo*, *Lento*, *Larghetto*, *Adagio*, *Andante*, *Andantino*, *Allegretto*, *Allegro*, *Vivace*, *Presto* and *Prestissimo*, represent the dozen principle degrees of movement from the slowest to the fastest. Each of these are often modified by other additional words, as for ex.:—*Allegro, ma non troppo*, (Fast, but not too fast), etc.

Even the above words are not an *absolute* indication of the *tempo* or time, but they approximate it. Thus, a movement in quarter-notes, marked *Grave*, would be performed very slowly; marked *Andante*, neither slow nor fast; but marked *Prestissimo*, these same quarter-notes would be executed as fast as possible.

The *relative* values of notes always remain the same, but the *absolute* values change with every change in the *tempo*. The Metronome, invented by Maelzel, indicates the *tempo* with mathematical exactness, and it is to be regretted that it is not more generally used. A general idea of the above terms will be gained by referring to this instrument.

DYNAMICS. WORDS AND MARKS OF EXPRESSION.

That which appertains to *power* and *quality* of tone belongs under the head of Dynamics. The five principal degrees of power are represented by the words *pianissimo* (as soft as possible), *piano* (soft), *mezzo* (medium), *forte* (loud), *fortissimo* (as loud as possible). The words *piano* and *forte* are modified by the combination *mezzo-piano* (medium soft) and *mezzo-forte* (medium loud); and all are abbreviated as follows: *pp, p, mp, m, mf, f, ff.*

A tone has also five principal modes of expression, called and indicated as follows: 1. The *organ tone*, indicated thus: = which has the same degree of power from beginning to end. 2. The *crescendo*, thus: <, commencing softly and increasing at will. 3. The *diminuendo*, thus: >, the opposite of *crescendo*. 4. The *swell*, thus: <>, a union of *cres.* and *dim.* 5. The *sforzando*, thus: ∧ or <, or >, or abbreviated *sfz. fz*, etc.; an explosive sound followed by an instantaneous *diminuendo*.

Various other signs and words are used to indicate the manner of expression, a few of which are here given:

Legato; smooth and connected; also indicated by enclosing the notes with a curved line, (⌒) called a slur.

Staccato; short or detached; also indicated by points (''''), dots (••••), or a combination of dots and the slur (⌒••••) (placed over or under the notes) thus giving three degrees of *staccato*.

Accelerando; a gradual acceleration of the *tempo*.

Rallentando; a gradual slackening of the *tempo*.

A piacere or *ad libitum;* the *tempo* at pleasure.

Sostenuto or *tenuto;* sustained.

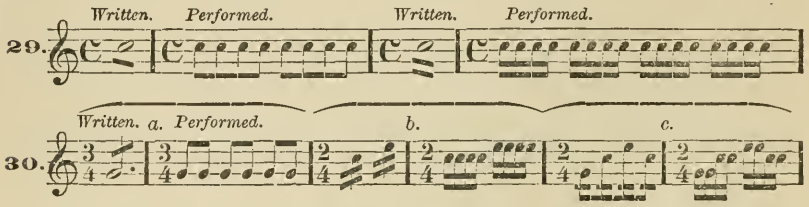
Scherzando; sportive.

Dolce; sweetly.

Maestoso; majestically.....etc., etc.

ABBREVIATIONS, &C.

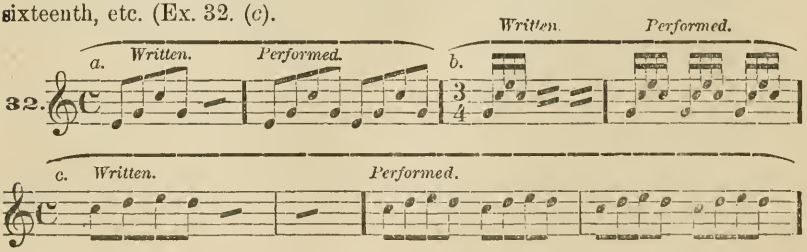
Divers devices to economize space and time are often made use of. Thus, when the same sound is to be repeated several times in a measure, one note equal to all of them may be so written as to express this repetition, for ex.:—



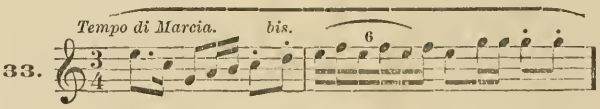
As seen in Ex. 29, if the same sound be desired eight times, each of the value of an eighth note, they may be indicated by a whole-note accompanied by one stroke; if sixteen sixteenths are desired, then by a whole-note and two strokes. Ex. 30. shows the method of expressing six eighth-notes (*a*), four sixteenths (*b*) and two sixteenths (*c*).

The *Tremolo*, a more or less rapid alternation of two tones or a group of two parts, may be abbreviated after the same principle, Ex:

Further, the repetition of a *group* of notes may be expressed by a single stroke (Ex. 32. *a*) if in eighth-notes, by two strokes if sixteenths (Ex. 32. *b*) and the repetition of an entire measure, when the notes are of equal value, may be signified by one, two or more strokes according as the notes are eighth, sixteenth, etc. (Ex. 32. (*c*).



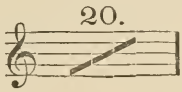
To indicate the repetition of one or more measures in which notes of different values have been used, the passage is enclosed with a curved line or brackets and marked *bis* ("again"). Ex.:—



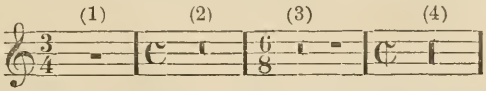
When an entire musical period is to be repeated, dots are placed at the double-bars. If placed *before* the double bar, thus: it signifies the repetition of the preceding period; if *after*, thus: , then the period following.

This character (𝄋) with the words *al segno* ("to the sign") indicates a repetition commencing back where the (𝄋) was last placed, and, finally, *Da Capo* or *D. C.* signifies a repetition from the beginning, in which case the final close is generally marked with the word *Fine*, or a pause over a double bar, thus:

Where a rest of several measures is to be observed, it is indicated by a stroke across the staff and the number of measures of silence desired, for ex.:—

34. 

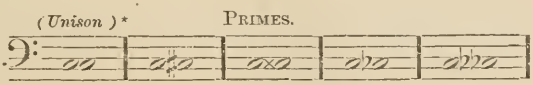
Rests for one, two, three and four measures, no matter in what time the composition may be written, are often expressed as follows:

35. 

The whole-rest is used here in the sense of a *whole-measure* rest and not in the sense of its equality with a *whole-note.*

INTERVALS.*

The difference of pitch between two sounds is termed an Interval. To the ear, the compass of an interval is determined by the relative graveness and acuteness of the two sounds, and to the eye by the space occupied upon the staff. The designation of an interval is determined by the number of staff-degrees embraced. Thus, two sounds expressed on the same staff-degree form an interval termed a Prime. No. 36 exhibits several *different sounding* intervals, but as all are expressed upon the same staff-degree, they are all *primes.*

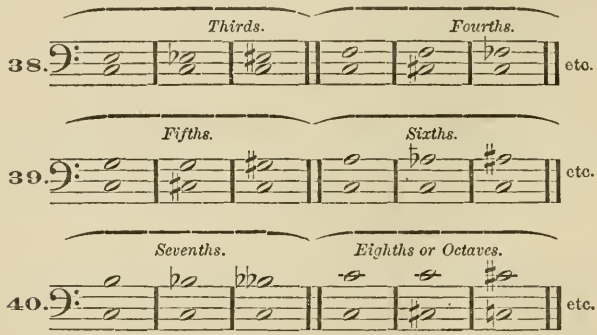
36. 

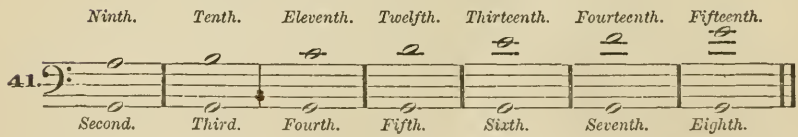
* REMARK.—An *unison* or prime of one and the same sound, is only a *theoretical* interval, since in order to fulfil the conditions of a real or *practical* interval, there must be a *difference* of *pitch.* We would remark here also, that in teaching the present subject it has been the author's custom to introduce at first only intervals in *general*, reserving the subject of *specific* intervals until their derivations are thoroughly understood. These will therefore be developed in detail a few pages further on.

An interval occupying two staff-degrees is called a Second, no matter what changes in the sound are made by the application of sharps or flats. Ex.:—

SECONDS.

A Third occupies three staff-degrees; a Fourth, four; a Fifth, five, and so on. We append examples:—





Intervals, as a rule, are counted from the lower tone upward. When counted downward, it should be so specified, for ex.: a fifth, sixth, etc., "below." Also, for the sake of greater simplicity, intervals greater than an octave are reckoned as seconds, thirds, etc.

Two methods of practice should follow here, in order to ensure a thorough comprehension of the subject thus far.

1*st.* Let the pupil be required to name the various general intervals from a given letter.

2*nd.* Require the pupil to name the interval between any two given letters.

MELODY.

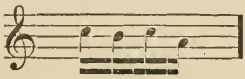
A succession of tones rhythmically ordered, possessing an intelligible meaning and moving themselves around a chief-tone is termed a Melody. By chief-tone is to be understood that tone, upon which a melody can close, producing a sense of perfect rest. A melody may be rendered by one or more voices or instruments in unison or in octaves.

MOTIVE. FIGURE.

A Motive or Figure is a group of two or more notes from which may be constructed passages of different kinds. A few of the multitudinous modes of elaborating a motive are shown in the following examples. Careful study and practice upon original motives are earnestly recommended, as readiness in this direction enables the composer not only to be economical with his ideas, but also to secure unity in his compositions.

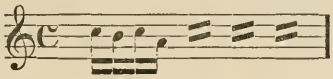
1*st.* Taking the following group as a motive:—

42.



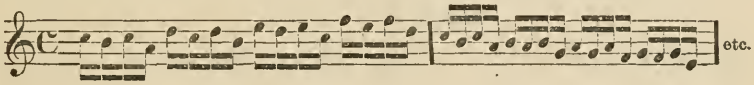
a passage may be formed by its simple repetition, thus:—

43.



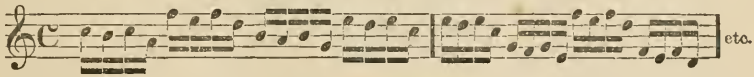
2*nd.* The motive repeated on other degrees higher or lower, thus:—

44.



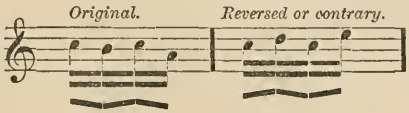
3*rd.* The motive repeated in more distant positions, thus:—

45.



4*th.* Reversing the direction of the intervals in the original motive, thus:—

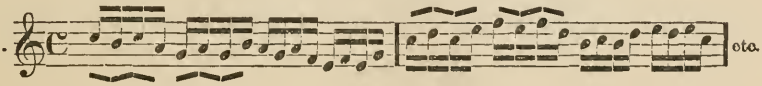
46.



and repeating as in Ex. 43, 44 or 45, etc.

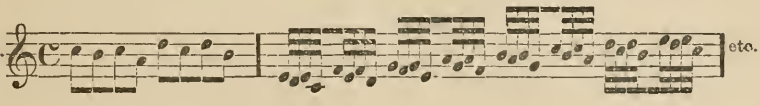
5*th.* Alternate use of the original and contrary motion, thus:—

47.

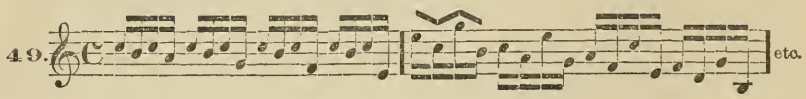


6*th.* By augmenting or diminishing the value of the notes, thus:—

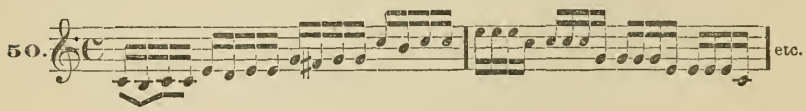
48.



7*th.* Free; *i. e.* using different intervals from those in the original motive, for ex.:—



8*th.* Partial abandonment of the *melodic* character of the motive, thus:—

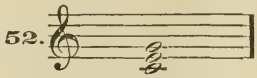


9*th.* Total abandonment of the melodic character, but retention of the rhythm:—

It is hardly neccessary to add that the above is a mere suggestion of the possibilities of invention.

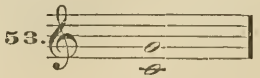
HARMONY. CHORD.

The scientific union of two or more different sounds is termed Harmony One such combination is called a Chord. Ex.:—



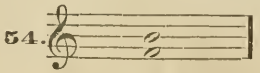
CONSONANCE.

The union of two or more tones possessing in itself the quality of *independence* or sense of *rest*, is termed a Consonance. Ex.:—



DISSONANCE.

The combination of two or more tones which produces the effect of *dependence*, a sense of *unrest*, a striving *toward* rest, is termed a Dissonance Ex.:—



RESOLUTION.

The progression, according to established rules, of a dissonance into a consonance, is termed a Resolution.

DECEPTIVE CADENCE.

The progression of one dissonance to another instead of the expected resolution into a consonance, is termed a Deceptive Cadence.

SCIENCE OF HARMONY.

This branch of music treats of the construction, entrance and progression of chords according to established rules.

SCIENCE OF METRICS.

This branch treats of the construction of different kinds of rhythm, and the symmetrical joining of musical sections, phrases and periods. Also of the accented and unaccented parts of measures and the correct method of placing chords with regard to accents.

SCIENCE OF COUNTERPOINT.

This treats of the construction of two or more *independent* melodies, which, though heard at the same time, do not transgress the laws of Harmony. In Counterpoint the different melodies may be begun together, or they can follow each other in imitative style, and then move on together, as for ex. in Canons and Fugues.

CHAPTER II.

THE THEORETIC ESTABLISHMENT OF THE TONE-SYSTEM.

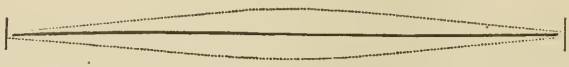
We have already rehearsed the *practical* development of our tone-system, and as it is decidedly appropriate in a work on theory that the confirmation or *reason-why* of that which is practical shall also be given, that confirmation will be in order here. The tone-system, as we have seen, is that series of tones which form the base and material of musical composition.

A string stretched over bridges, if vibrated and shortened little by little by approaching the bridges nearer to each other, will produce an almost indefinite number of differently pitched tones. There would be too many and too little difference in their pitch for practical use, if all were adopted; therefore, the proposition is to select such a series from this mass as have a practical variety of pitch, and at the same time are related, thereby capable of being formed into scientific melodies and harmonies.

To test this relation among the tones, the following simple experiments will be sufficient.

It is a well-known fact that vibrating bodies vibrate not only from end to end, but also simultaneously from half to half, third to third and so on; *i. e.*, a body divides or bridges itself at these equi-distant points. It will be readily understood therefore, that a string, in dividing itself into so and so many parts, will give forth an equal number of tones at one and the same time, all of them differing in pitch, and all relatively audible in proportion to the vigor of their vibration, though all these sub-tones or Harmonics, as they are termed, will be very soft in comparison with the tone given out by the entire string. If the entire string gives forth, for example the "great-octave F" (see diagram),

F.

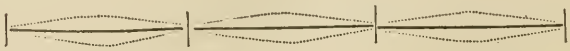


a bridge placed at the exact centre will cause each half of the string to give F also, but an octave higher; *i. e.*, the "the small octave f."

f. f.

Again, if bridges are so placed as to divide the string into thirds, each third will produce the fifth higher; *i. e.*, the "once-marked c."

c. c. c.



Two-thirds of the string will give the octave lower; *i. e.*, the "small-octave c," a fifth from the F produced by the whole string.

c. c.

Now, in attempting to develope a tonal-system, the relation or interval between two certain tones must be adopted and perpetuated throughout the entire system, in order to secure relationship among all its members.

There can be no more intimate relationship than that existing between a *fundamental* tone and its *harmonics*. The first harmonic, in order of power, is the octave of the fundamental, but a perpetuation of that relation would never yield a tone varying in pitch from the *fundamental*, except at octaves

The next harmonic most audible, is the fifth of the *fundamental.* The perpetuation of this relation continually yields new tones.

This was the relation, a *consonant* fifth, so called because of its inherent quality of independence, used in the establishment of our system, therefore the first tone added to the starting-point (F) was C; the next added was the fifth of C, G; then the fifth of G, D; and so on, as per following series:—

F, C, G, D, A, E, B.

Thus, each tone in its turn was first derived and then became a derivation, thereby securing the chain of relationship binding the whole system.

TONIC.

Each letter, except B (the reason of which will be given directly) was taken as the initial of a series, and the alphabetical order of the remaining letters constituted the group or family which acknowledged this as their chief-tone, or as it was termed, the Tonic.

THE GREEK OR ECCLESIASTICAL SCALES.

These various series, distinguished by fixed names, formed the Greek or Ecclesiastical Scales, their individuality consisting in the different order of the intervals or steps and half-steps composing them.

All but the Ionian and Æolian have been abandoned in modern music, but we append them all, directing attention to the order of their intervals.

GREEK OR ECCLESIASTICAL SCALES.

	1,	2,	3,	4,	5,	6,	7,	8.
Lydian.	F,	g,	a,	b,	c,	d,	e,	f.
				½			½	
Ionian.	C,	d,	e,	f,	g,	a,	b,	c.
			½				½	
Mixo-Lydian.	G,	a,	b,	c,	d,	e,	f,	g.
			½			½		
Dorian.	D,	e,	f,	g,	a,	b,	c,	d.
		½				½		
Æolian.	A,	b,	c,	d,	e,	f,	g,	a.
		½			½			
Phrygian.	E,	f,	g,	a,	b,	c,	d,	e.
	½				½			

SUB-DOMINANT. DOMINANT.

As stated above, the first tone of each series or scale was called the Tonic; it is the tone, around which, the others revolve; it is, so to speak, the centre, from which they radiate, and towards which they gravitate. Nearest

related to the tonic, is that tone from which it sprung (its fifth below), and that tone which in turn sprung from it (its fifth above). These related tones were called Dominants, so named on account of their dominating or controlling influence in determining the tonic. The first was called the Sub-Dominant, and the last the Dominant. The dominating influence of the latter, it must be remarked, is greater than that of the former. If C, for ex., be regarded as the tonic, then F is its sub-dominant, and G its dominant; if A is the tonic, then D is the sub-dominant, and E the dominant. It being essential that the dominant shall always be the *consonant* fifth of the tonic, here will appear the reason for not using the letter B as the tonic for an Ecclesiastical Scale.

An alphabetical series commencing with that letter would be as follows:

B, c, d, e, f, g, a, b.

and, as will be seen, the fifth (F) is not a *consonance* with the B, therefore, as the scale had no Dominant, the letter B could not be established as a Tonic.

EXTENSION OF THE TONE-SYSTEM.

Parallel to the want of a Dominant in the series commencing upon B, though by no means so serious a matter, the Lydian Scale, whose Tonic was F, lacked a sub-dominant. These needs were supplied in the progress of time by the addition of new tones to the system, by means of perpetuating the same relation as that existing between the others. Thus, the consonant fifth below F, *viz:* B♭, was adopted, supplying a Sub-dominant to the Lydian Scale; then, F♯ was added to the other end of the system, furnishing a Dominant to B. The extension was carried forward until at length the system with its adopted tones stood as follows:—

a♭, e♭, b♭, F, C, G, D, A, E, B, f♯, c♯, g♯.

Here it remained for a time, but as the a♭ and g♯ came so near being an octave, it excited a discussion among the theorists which resulted in the addition of other tones in the endeavor to find an interval which would fulfil the conditions of a *perfect octave.* The system was extended as far as the following series indicates:—

f♭, c♭, g♭, d♭, a♭, e♭, b♭, F, C, G, D, A, E, B, f♯, c♯, g♯, d♯, a♯, e♯, b♯.

and no *perfect octave* appeared.

Then, each letter was double-sharped and double-flatted, as follows:—

f♭♭, c♭♭, g♭♭, d♭♭, a♭♭, e♭♭, b♭♭; f♭, c♭, g♭, d♭, a♭, e♭, b♭; F, C, G, D, A, E, B; f♯, c♯, g♯, d♯, a♯, e♯, b♯; fx, cx, gx, dx, ax, ex, bx.

resulting finally in the declaration that the octave relation would never appear though tones were added *ad infinitum.* The system was affirmed to be one

without end, and on account of being composed of consonant or pure fifths was designated the Pure System.

EVEN TEMPERAMENT.

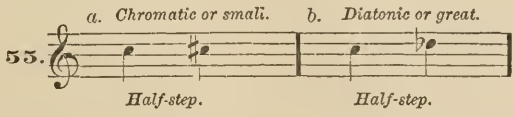
Certain other more progressive theorists, however, regarding this mass of tones, infinite in number, as unpractical, advocated forcing an octave between the A♭ and G♯ alluded to, by means of tempering or tuning the fifth a shade smaller.

Thus, by flatting each fifth throughout the system a very slight degree, the A♭ and G♯ were brought into the relation of a perfect octave, thereby establishing a boundary, reducing the infinite number to twelve tones in the compass of an octave and fixing a system of more practical use in both Melody and Harmony.

This was called the Even Temperament. The strife among the theorists as to which is best has continued down to the present day, but as nearly all of the greatest masters, Bach, Haydn, Mozart, Beethoven and others, adopted and used the Even Temperament, besides the fact that all keyed instruments are adapted thereto, the strife seems to be one sided. Weitzmann's illustration is terse and pertinent,—" *Gold* is of little utility before being tempered; just so, *fifths* need tempering, in order to prepare them for practical use."

SPECIFIC INTERVALS.

Specific intervals are measured by steps and half-steps, and, for the sake of still greater distinctness, there are two kinds of half-step. If the half-step is expressed upon the same staff-degree, as at *a*, ex. 55, it is called a *small or chromatic half-step;* if it is expressed upon contiguous degrees, as at *b*, ex. 55, it is then called a *great or diatonic half-step.*



Thus far, we have presented only intervals in general. We have learned, for example, that tones occupying two contiguous staff-degrees always form seconds, no matter what variations in the sound may be effected through the use of sharps and flats. To distinguish these variations, one from the other. a special name for each is nesecessary

CLASSIFICATION OF INTERVALS.

Intervals are divided into four general classes, as follows:—

I. *Major.*

II. *Minor;* a small half-step smaller than *major.*

III. *Diminished;* a small half-step smaller than *minor.*

IV. *Augmented;* a small half-step greater than *major.*

REMARK.—In modern compositions, intervals smaller than *diminished,* and greater than *augmented* sometimes occur. Such are called *double-diminished* or *double-augmented,* and frequently require the use of even a *triple*-flat or *triple*-sharp. Although rarely used, these are as logically correct as the *double*-flat or *double*-sharp.

It will be seen from the above definitions that *major* intervals are taken as the basis from which to determine the others, therefore the first effort should be towards fixing the *basis* thoroughly in mind.

DETERMINATION OF MAJOR INTERVALS.

A Major Prime is one and the same tone.

A Major Second is one whole step.

A Major Third is two whole steps.

A Major Fourth is three whole steps.

A Major Fifth.—The fifths have already been learned in the establishment of the tonal system.

♭♭ ♭ ♯

f, c, g, d, a, e, b, f, c, g, d, a, e, b, F, C, G, D, A, E, B, f, c, g, d, a, e, b.

×

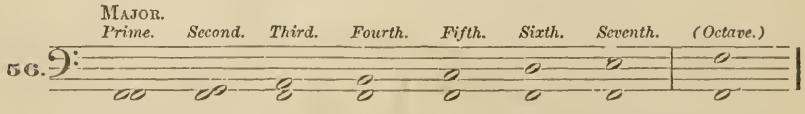
f, c, g, d, a, e, b.

A Major Sixth is a *major fifth* and one whole step.

A Major Seventh is a *major fifth* and two whole steps.

The Major Octave, Major Ninth, etc., are regarded the same as a Major Prime, Major Second, etc.

TABLE OF MAJOR INTERVALS FROM F.



The following exercise is here recommended. Let the pupil be required to *name* and *write* all the *major* intervals from the various letters, until considerable readiness is acquired.

MINOR INTERVALS.

As already defined, they are a small half-step smaller than *major* intervals Ex.:—

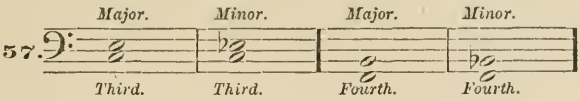
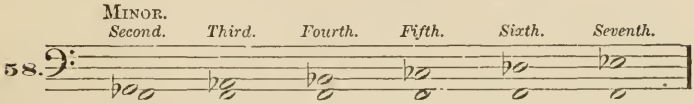


TABLE OF MINOR INTERVALS FROM F.



REMARK.—As a *major prime* is one and the same tone, no smaller interval can exist; therefore a *minor* or *diminished prime* is not conceivable.

The mode of practice here should be to ask the pupil to name and write the *major* and then the *minor* of any required interval, for the *major* is the basis from which the others deviate, and, as we have remarked before, knowing *that*, the *minor*, *diminished* and *augmented* are easily determined.

DIMINISHED INTERVALS.

These are a small half-step smaller than *minor* intervals. Ex.:—

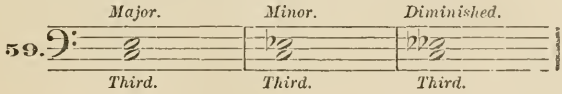
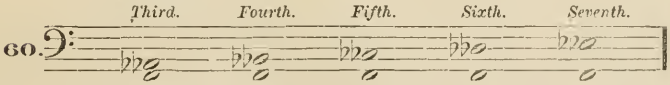


TABLE OF DIMINISHED INTERVALS FROM F.



The *third* and *seventh* of *diminished* intervals occur most frequently; the others seldom. Exercise here in naming and writing the *diminished* intervals of various letters.

AUGMENTED INTERVALS.

These are a small half-step greater than *major* intervals. Ex.:—

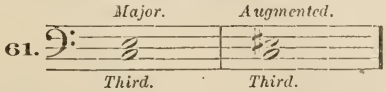
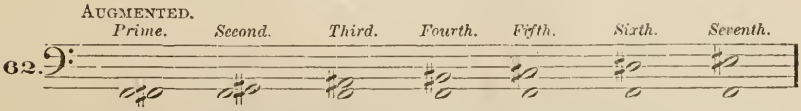


TABLE OF AUGMENTED INTERVALS FROM F.



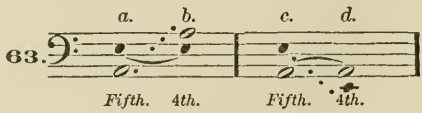
The *augmented second, third, fifth* and *sixth* occur oftenest. EXERCISE.—After each of the four classes of intervals have been thoroughly learned

separately, the pupil should be exercised by passing from one class to another at random, and finally, the teacher should give *both* letters forming any interval and require the pupil to name that interval. These several methods of practice, if fully carried out, will ensure a ready knowledge of this difficult chapter.

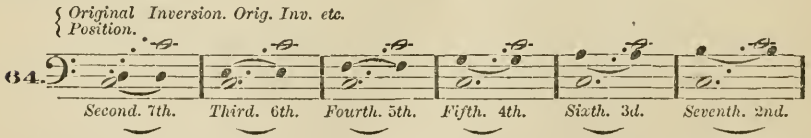
CHAPTER III.

INVERSION OF INTERVALS.

Inversion is placing the lower tone *above* the original upper tone, or the upper tone *below* the original lower. The following example clearly exhibits what is meant by this term.



By placing the lower tone of the position at *a*, Ex. 63, above the original upper, as at *b*, or in other words, by *inverting* the tones at *a*, which form a *fifth*, a new relation arises; *viz:* a *fourth*, as seen at *b*. If the upper tone, at *c*, be placed below the original lower one, as at *d*, the same relation results except that the position is an octave lower. We give here a few general examples of inversion:



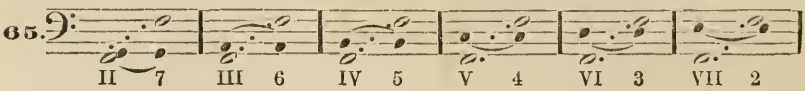
As the thorough comprehension of this subject will greatly facilitate the comprehension of the entire subject of music, the following rules and examples are recommended to careful study and exercise in various keys, both oral and written:—

RULES.

1. *The inversion of all major intervals produces minor.*

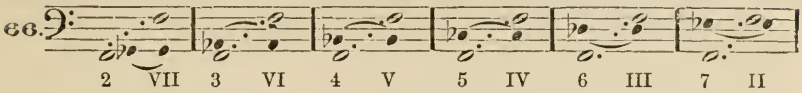
REMARK.—*Major* intervals will be indicated by Roman, and *minor* by Arabic notation. *Diminished* intervals will be indicated by placing the sign (°) at the right of the figure, thus: 7°, and *augmented* by this sign (ˇ), thus: 6ˇ.

TABLE OF MAJOR INTERVALS FROM F WITH THEIR INVERSIONS.



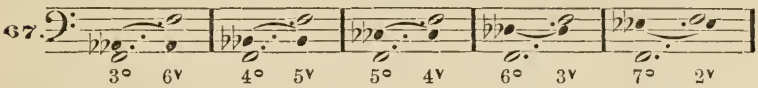
II. *The inversion of minor intervals produces major.*

TABLE OF MINOR INTERVALS FROM F WITH THEIR INVERSIONS.

66. 

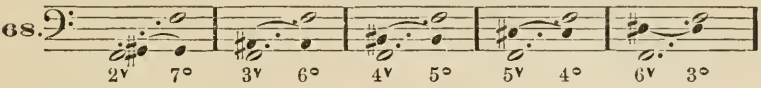
III. *The inversion of diminished intervals produces augmented.*

TABLE.

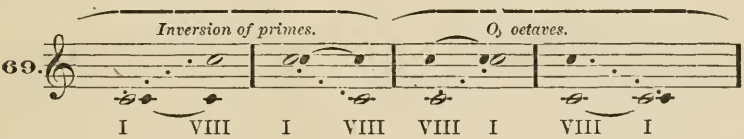
67. 

IV. *The inversion of augmented intervals produces diminished.*

TABLE.

68. 

To render an interval capable of inversion, there must be a lower and upper tone to start with. It follows therefore that the *prime* cannot be inverted. In some text-books the following examples are given as inversions.

69. 

These are instances of *transposition* (Gr: *versetzung*, change of position) of one voice an octave higher or lower, while *inversion (umkehrung)* means to turn upside down. It will readily be seen that altering the position of anything standing upon a *plane*, as does a *prime*, or causing anything to assume the position of a plane, is not *inversion* but *transposition*.

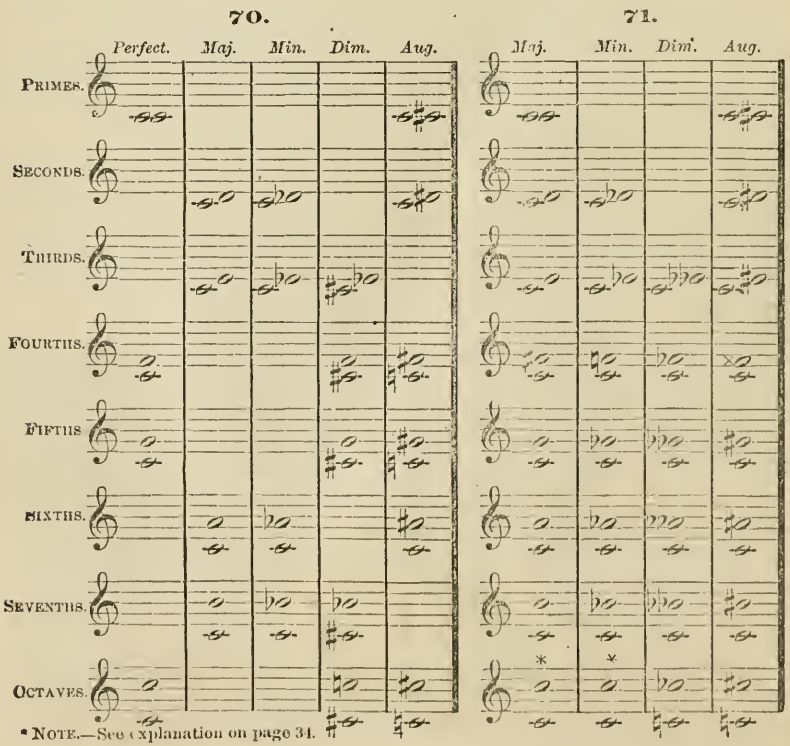
Those who are familiar with the presentation of intervals and their inversions in other works on the Theory of Music, will doubtless recognize a difference in the present one. Heretofore, in all the text-books which have come under the eyes of the author or the editor of this work, intervals have been divided into the following five classes, *viz:* Perfect, Major, Minor, Diminished and Augmented. In this system, the use of the term Perfect has been discarded, and all the intervals so classed that they are either Major, Minor, Diminished or Augmented. We deem an explanation of this new departure and its advantages *apropos*.

The adjective *perfect*, means something that is *perfect*, or else it conveys no meaning whatever. It follows naturally that to speak of a *perfect* fourth and a *perfect* fifth, in the present prevailing use of the Even Temperament, is a contradiction in itself because both of those intervals are *tempered*, *i. e.*, they are *not perfect*.

The only intervals which may be properly retained as *perfect*, are the *prime* and *octave*, but as the word *Major* can qualify those intervals with equal propriety and distinctness, we have adopted its use, and have thereby been enabled to cast aside one superfluous term, thus reducing the number of classes from five to four, and making a step towards the simplification and systemization of an abstruse subject. This, according to our conception of a text-book, will recommend itself to any unprejudiced, progressive mind. The advantages claimed for the system of intervals as presented in this text-book are as follows:

1. One certain interval (the *major*) may always be taken as the starting-point from which to determine the *minor*, *diminished* and *augmented;* therefore, knowing the major, we can easily determine the augmented, as it is a half-step greater, or the minor, as it is a half-step smaller, or the diminished, as it is a half-step smaller still.

With the use of "*perfect*" intervals, this systematic order is not obtainable (compare the following tables).



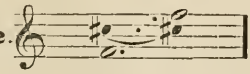
* NOTE.—See explanation on page 34.

Commencing with *thirds*, there is a marked difference throughout the two tables, more especially in the *diminished* intervals, and, as will be remarked, the second table (71), the one set forth by this system, discards the class of "*perfect*" intervals entirely.

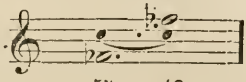
2. As will be readily seen, greater system and regularity, therefore greater simplicity, is secured by the method exhibited in Example 71, and further, one serious error is disposed of, an error which has long been a cause of perplexity and confusion to the student of musical theory. We allude to the way of teaching *diminished* intervals. No. 70 professes to give the various intervals taking the tone C as a starting-point, and, as will be noticed, the *diminished* intervals are so made by raising the *lower* tone, whereas in the second table, No. 71, the *upper* tone, instead, is depressed.

If a pupil were asked to name the letter forming a diminished third from C♮, would it be reasonable for him to answer, "C♯ and E♭?" (compare above tables on that interval). The *diminished* third of C♮ is obviously E♭♭, and E♭ is the diminished third of C♯ as a starting-point. It is stated that this raising of the lower tone comes of itself, through the relations developed in inversions; *viz*: the inversion of *augmented* intervals produces *diminished*. (It is quite as correct to say that *augmented* intervals are produced through the inversion of *diminished;* therefore the origin of each is equally dependent upon the other). To prove that in order to diminish an interval, it is correct to raise the lower tone, the augmented fifth is used, or rather misused, in the following-wise.

It is said that if F and C♯, an augmented fifth, be inverted, the diminished fourth, C♯ and F, results, as follows:

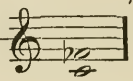
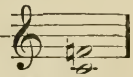
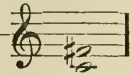
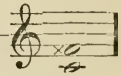
72. 

Hence, the elevation of the lower tone comes of itself. The deduction is, therefore, that the diminished fourth of C♮ is C♯ and F. Is it any wonder that confusion follows? If we are compelled to seek the origin of the diminished fourth of C in an augmented fifth, would it not be quite as reasonable to use the tones F♭ and C♮, which certainly form just as correct an augmented fifth as F♮ and C♯? By inverting F♭ and C♮ we shall discover that the diminished fourth is formed by depressing the *upper* tone of a minor fourth, thus:

73. 

The relation produced, that of a diminished fourth, abstractly considered, is of course the same, whether the lower tone is raised or the upper tone lowered, but, considered in connection with C♮, F♮ is clearly its diminished fourth, while

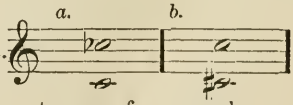
F♮ is the diminished fourth of C♯, therefore belonging to quite another Tonic. It will be seen in the table, Ex. 71, that all the diminished intervals are formed from the minor in the same way (the octave excepted, of which we shall speak presently) *i. e.*, by lowering the *upper* tone.

Again, in connection with fourths, if we reason a little farther we shall see that if C and F♭, thus:—  form a diminished fourth, then the *minor*-fourth, which is only a half-step greater, must be C and F♮, thus:—  and not a major or perfect-fourth, as according to other text-books. Again, if C and F form a minor-fourth, then the *major*-fourth, which is a half-step greater than the minor, must be C and F♯, thus:—  So also the augmented fourth, a half-step greater still, must be C and F×, thus:— 

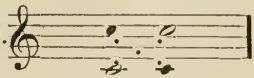
We have given the fourths in the table according to the above sequence.

Passing on to fifths, we remark that if C and G form a *major* fifth, then the *minor* fifth, a half-step smaller, must be C and G♭, (compare tables on this interval). If C and G♭ form a *minor* fifth, then C and G♭♭, a half-step still smaller, must be the *diminished* fifth, and C and G♯, a half-step greater than the major, the *augmented* fifth.

The *prime* and *octave* are essentially the same thing, but as lowering the upper tone of an octave a half-step (*a*, Ex. 74), or raising the lower a half-step (*b*) creates an interval to which the term *prime* cannot be properly applied, it becomes necessary to provide for this, so to speak, irregularity.

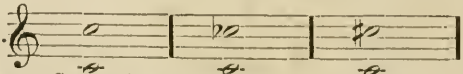
74. 

If we invert the major octave, as for example:

75. 

the relation is in no wise altered. It therefore follows that, as the inversion of major intervals produces minor, and *vice versa*, the *octave is the content of both major and minor*. It then follows that any deviation from this relation must be termed *diminished* or *augmented*.

The different kinds of octaves, therefore, are as follows:

76. 

PART II.

HARMONY.

CHAPTER IV.

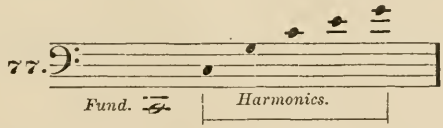
MODE. (KEY.)

The HARMONIC FOUNDATION *of a musical composition is termed the Mode or Key.*

MAJOR MODE.

We have seen that in a *melody* there is a chief-tone or Tonic, around which the other tones revolve, and upon which they may center at last with a sense of complete rest. Parallel to this, in *harmonic* compositions, there is a chief or *Tonic-accord*, to which the other harmonies are subservient, and upon which they must also finally rest.

A single string or column of air put into vibration, gives out, in addition to its *fundamental*, the octaves, *fifths* and *thirds* of that tone, and so on even to *seconds*, in the minuter divisions of the body, but the harmonics most audible may be stated as in the following example, supposing C to be the *fundamental:*—



There are three different tones, C, e, g, the others being duplicates, as will be noticed.

MAJOR TRIAD.

Nature, therefore, gives us our *first accord*, and from this, the whole system of Harmony evolves. The accord consists of a *fundamental* (C), *its major third* (e) and *major fifth* (g), and any combination of three tones presenting these relationships is termed a Major Triad.

The intervals in such a combination are all consonances, as follows:—

C—E, a consonant or major third.

C—G, a consonant or major fifth.

E—G, a consonant or minor third.

The accord possesses, therefore, an inherent sense of independence, making it perfectly adapted to becoming the chief-accord or Tonic-triad in a major mode. We have then as the Tonic-triad in the mode or key of C major, the following:—

C, e, g.

Since this is a *chief*-accord, the fact is implied that there are also *related*-accords. The tones nearest related to the Tonic, as we have already learned, are its two dominants. Thus, with C as Tonic, we should have the following scheme:—

Sub-Dom. Tonic. Dom.
F——C——G.

Now, if we add the necessary tones to construct major triads upon these letters, our scheme will stand as follows:—

Sub-dom.-triad. Tonic-triad. Dom.-triad,
F, a, C, e, G, b, D,

A single triad, by itself, cannot determine a key, for the reason that each and every triad, as will be seen later, may belong to several different keys. In order, therefore, to firmly establish any desired key, a *succession* of accords is necessary, in which shall appear the *triads of the Tonic and both dominants.* This is a point to be well-remembered.

MINOR TRIAD.

Those tones situated a *minor third below,* and a *major third above* the Tonic, are also closely related to that tone. These are referred to, in their connection with the Tonic, as "*related in the third,*" and upon these tones, as upon the Tonic, Sub-dominant and Dominant, we can also form triads, as in the following scheme:—

F, a, C, e, G, b, D.

The brackets (⌊___⌋) indicate the new triads, which are based upon a and e as fundamentals.

Examination of the triads, a, C, e, and e, G, b, will discover them to be formed of a *fundamental, its minor third and major fifth.* Such a combination is always a consonant accord and is called a Minor Triad. The essential difference between a major and minor triad, as will be noticed, lies in the *third.*

These triads, based upon those tones related in the third, are closely related to the Tonic-triad inasmuch as two tones of each are also members of that Tonic-triad, thus·

Tonic-triad.
a, C, e, G, b.

Major and minor triads are the only CONSONANT *accords in the range of Harmony. All the other accords, in whatever form, are* DISSONANT.

DIMINISHED TRIAD.

There still remain two tones, *viz*: D and B, more distantly related to the Tonic, upon which we may also form triads, as follows:

D, | F, a, C, e, G, b, D, | F.

The triad D, F, a, consists of a *fundamental, its minor third and major fifth*, and is therefore a minor triad, but, as its connection with the Tonic-triad is principally through the triad of the Sub-dominant, its relation to the chief accord is more distant than the minor triads heretofore developed. The triad b, D, F, presents a new formation, *viz.*, a *fundamental, its minor third and minor fifth*; such a combination is a dissonant accord and is called a Diminished Triad.

MINOR SUB-DOMINANT TRIAD IN A MAJOR MODE.

We have stated on a preceding page, that a major mode can be firmly established by the proper use of the three major-triads, *viz:* the triads of the Tonic, Sub-dominant and Dominant.

The triad of the Sub-dominant, however, can be made milder, making the character of whole mode proportionately mild, by depressing the *third* a small half-step. Our scheme, with this alteration, will appear as follows:—

F, a♭, C, e, G, b, D.

The Sub-dominant-triad by this change becomes a minor triad, just as satisfactory in its aid to establish the key, but less bold in character.

REMARK.—No such change can be allowed to the *Dominant*-triad (G, b, D,) as that would lead immediately to another key. *In a* MAJOR *mode, therefore, the Dominant triad must always be* MAJOR.

AUGMENTED TRIAD.

Presenting the last scheme again, and considering the tones a♭, C, e, we find still another relationship.

D, | F, a♭, C, e, G, b, D.

This last formation consists of a *fundamental* (a♭) *its major third* (C) *and augmented fifth* (e). It is a dissonant accord and is called an Augmented Triad. The above scheme also adds another diminished triad (see letters D, F, a♭).

MAJOR SCALE.

If the seven stem-tones of the foregoing C major mode, *viz*: F, a, C, e, G, b, D, (a♭, having been introduced into the mode artificially, cannot be considered a *stem*-tone), be now arranged melodically *i. e.*, degree-wise, commencing with the Tonic, the series so formed will be the

MAJOR SCALE OF C.

	1,	2,	3,	4,	5,	6,	7,	8.
Ascending.	C,	d,	e,	f,	g,	a,	b,	C.
Descending.	C,	b,	a,	g,	f,	e,	d,	C.
	8,	7,	6,	5,	4,	3,	2,	1.

A scale, therefore, is the degree-wise succession of the tones of any certain defined mode or key.

DIATONIC SCALE.

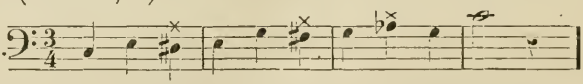
By this term, is to be understood, a scale moving itself in the *stem-tones* of a mode, presenting no smaller intervals than minor seconds, and none greater than major seconds.

LEADING TONE.

This member of our tone-system lies a great half-step below the Tonic. Thus, in the mode of C major, the leading-tone is B. The character of the leading-tone is a striving towards farther progression; hence its name.

CHROMATIC.

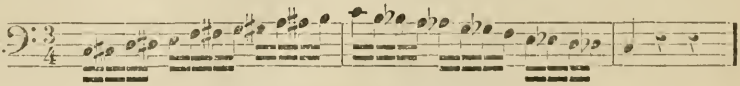
All those which are not strictly *stem-tones* in a mode, are said to be *chromatic.* Ex. (see cross, ×):—

78. 

The D♯, F♯ and A♭ in the above example are, *in the key of C*, chromatic.

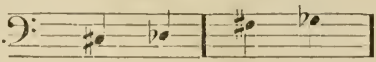
CHROMATIC SCALE.

A passage composed entirely of half-steps, is generally termed a chromatic scale. Ex.:—

79. 

ENHARMONIC. (EQUIVOCAL.)

Such tones, according to the Even Tempered System, as occupy different staff-degrees, thus bearing different names, yet sound the same, are termed Enharmonic Tones, for ex.:—

80.  etc.

RESUME OF THE TRIADS DEVELOPED IN A MAJOR MODE.

Three major triads, *viz:* upon the Tonic, Sub-dominant and Dominant.

Three minor triads, *viz:* upon the tones related in the third and upon the second degree of the scale.

Two diminished triads, one upon the *leading-tone*, and one upon the second degree of the scale in the milder major mode.

One augmented triad upon the third of the minor Sub-dominant triad.

RESUME OF THE RELATIONSHIPS PRESENTED IN THE ABOVE TRIADS.

Major triads consist of a *fundamental*, its *major third* and *major fifth.*

Minor triads consist of a *fundamental*, its *minor third* and *major fifth.*

Diminished triads consist of a *fundamental*, its *minor third* and *minor fifth.*

Augmented triads consist of a *fundamental*, its *major third* and *augmented fifth.*

REMARK.—The above are the only *specific* names given to triads, but many other similar combinations are possible, as will be seen further on, to which the general name of Altered Accords, is given. There are, however, as we have already stated, only two *consonant* accords (major and minor triads); all others whatsoever being *dissonant.*

CHAPTER V.

THE SIGNATURE, ITS ORIGIN AND OFFICE. NORMAL MODE.

The mode of C major is regarded as the Normal Mode. All other major modes are constructed according to the relationship set forth in that; *i. e.*, there must be three major triads, based respectively upon any tone chosen as *Tonic, its Sub-dominant and Dominant.*

MODE OF F MAJOR.

If we take, for example, the tone F, as Tonic, and form a *major* triad upon that *fundamental* (see relationships of that combination above), the Tonic-triad will be—

F, a, c.

The Sub-dominant of F is B♭, a *major fifth below*, or *minor fourth above* that tone. A major triad upon B♭ consists of the tones—

B♭, d, f.

The Dominant of F is C, a *major fifth above*, or a *minor fourth below* the Tonic. A major triad upon C will be as follows:—

C, e, g.

Now if we unite these triads in their proper position, the scheme will present the tones forming the mode of F major, thus:—

Sub-dom. triad.		*Tonic triad.*		*Dom. triad.*		
B♭,	d,	F,	a,	C,	e,	G,

SCALE OF F MAJOR.

If these tones be now arranged degree-wise, or in alphabetical order, commencing with the Tonic, the result will be the Scale of F Major.

	1,	2,	3,	4,	5,	6,	7,	8.
Ascending:	F,	g,	a,	b♭,	c,	d,	e,	F.
Descending:	F,	e,	d,	c,	b♭,	a,	g,	F.
	8,	7,	6,	5,	4,	3,	2,	1.

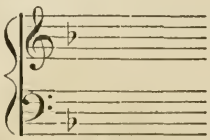
The introduction of the first flat (B♭) occurs then, by forming a major mode upon F, as the Tonic.

The relationships of the new mode will be found to exactly correspond with those of the normal mode (C major). The comparison may be made between the *triads* of the two modes or between their *scales*.

In the first method, *major* triads will be found upon the Tonic, Sub-dominant and Dominant, and in the last, the steps and half-steps will be found to occur between the same numbers of the scale.

SIGNATURE.

So long as a composition or movement remains in the key of F major, the relationships of that mode must be maintained. For the sake of convenience, the altered tone (B♭) is indicated at the beginning of a composition or movement, by placing a flat (♭) upon that degree of the staff which bears the name of the tone to be altered. This sign is called a Signature, and, in the present case, would be written as follows:—

81. 

BRACE.

The Brace (⎨) is a character used to unite or indicate the several staves which are to be played or sung together.

ACCIDENTALS.

The influence of the signature continues throughout the composition, unless contradicted by the use of *accidentals*, or by a change of signature. Thus, if the signature consists of one flat, or according to common usage, if the signature "is one flat," the letter B is to be flatted every time it occurs, unless contradicted, no matter what its position upon the staff may be, high or low. *Accidentals* are characters (♯, ×, ♭, ♭♭, ♮), used either to cancel all or any part of the signature, or to alter any other of the stem-tones of a mode. They occur in a composition, so to speak, *accidentally; i. e.*, with no defined regularity; hence the name. They are placed immediately before the note to be altered, and their influence continues to the end of the measure in which they occur, unless sooner countermanded. From the beginning of the following measure, the signature again obtains effect. An accidental affects only that staff-degree upon which it is placed, therefore the octaves above or below also require the same sign.

REMARK.—These signs are all devised for distinctness and convenience to the executant, and, as there is never danger of excess in these particulars, there would be nothing incorrect in countermanding an accidental even in after-measures, should the composer deem a do ıbt possible.

MODE OF G MAJOR.

If we take the other nearest related tone to C, *viz:* G, as Tonic, the *Tonic-triad* will be—

G, b, d.

The Sub-dominant and Dominant of G are C and D, and, constructing major triads upon these tones in addition to the Tonic-triad, we shall have the stem-tones of the mode of G major, thus:—

Sub-dom.-triad. Tonic-triad. Dom.-triad.

C, e, G, b, D, f♯, A.

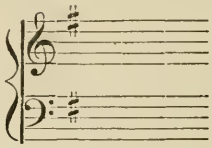
SCALE OF G MAJOR.

Arranging these alphabetically, commencing with the Tonic, the result will be the scale of G major, thus:—

	1,	2,	3,	4,	5,	6,	7,	8.
Ascending:—	G,	a,	b,	c,	d,	e,	f♯,	G.
Descending:—	G,	f♯,	e,	d,	c,	b,	a,	G.
	8,	7,	6,	5,	4,	3,	2,	1.

The introduction of the first sharp (f♯) occurs therefore, in forming a major mode with G as the Tonic, and a composition or movement in the key of G major will require a signature of one sharp, that character being placed upon

the fifth line where the G clef is used, and upon the fourth line with the F clef, thus:—

82. 

Each F, in whatever position, must be sharped, unless contradicted by accidentals or a change of signature.

The foregoing will be sufficient to indicate the manner in which all major modes and major scales are constructed, using each tone in turn, in our tone-system as the Tonic to such a mode or scale. The upper figures in the following table show the successive order of the Tonics, and at the same time the number of sharps or flats which the mode upon that Tonic contains. The figures underneath indicate the successive order of the sharps and double-sharps, flats and double-flats.

(8), 7, 6, 5, 4, 3, 2, 1, 0, 1,
f♭♭, c♭♭, g♭♭, d♭♭, a♭♭, e♭♭, b♭♭, | f♭, c♭, g♭, d♭, a♭, e♭, b♭ | F, C, G,
etc., 9, 8, 7, 6, 5, 4, 3, 2, 1,

2, 3, 4, 5, 6, 7, (8).
D, A, E, B, | f♯, c♯, g♯, d♯, a♯, e♯, b♯, | f×, c×, g×, d×, a×, e×, b×,
1, 2, 3, 4, 5, 6, 7, 8, 9, etc.

The tone C (0) is the Tonic of the normal mode which contains no flats or sharps, therefore F will be Tonic No. 1 in the modes with flats, and according to that figure, that mode contains one flat. Just so B♭ is Tonic No. 2, and that mode contains two flats, and so on. In the same manner G is Tonic No 1 in the modes with sharps, and that mode contains one sharp. D is Tonic No. 2, and its mode contains two sharps, &c.

It will be observed that the mode of F♭ major contains eight flats, and the mode of G♯, eight sharps, whereas we have but seven tones in a mode. In the mode of F (♮) major there is one flat (B♭). Now, if we apply a flat to each of the seven tones of that mode, the tone B will be doubly flatted; *i. e.*, it will have *two* flats, which, together with one flat upon each of the six tones remaining, makes a total of eight.

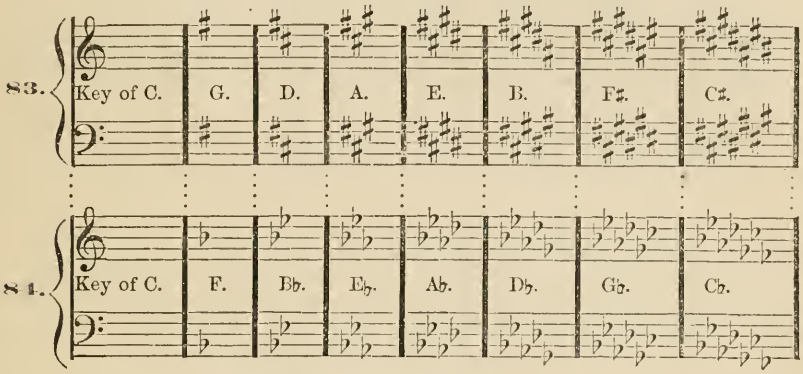
The key of G major has one sharp (F♯). If we apply a sharp to each of the tones of that mode, the tone F becomes twice sharped, making a total of eight sharps in the mode of G♯ major.

Modes with more than seven or eight flats or sharps only present useless difficulties, for in the present use of the Even Temperament, a mode with eight sharps, for instance, may be expressed more simply with the use of four flats, or a mode of eight flats by the use of four sharps; further, it is not customary to

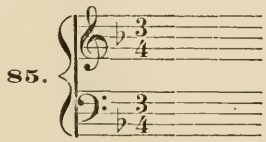
put more than *seven* sharps or flats *in the signature.* It is only in transient changes in the mode that so many altered tones present themselves, and they are then indicated by means of accidentals.

Here will follow a general view of the various signatures, and, as will be observed, the order of writing the members of each signature is according to the order in which they were generated.

TABLE OF SIGNATURES AND TONICS IN MAJOR MODES.



The figures indicating the *time,* should be placed immediately after the signature, for ex.:—



CHAPTER VI.

NORMAL MINOR MODE. NORMAL MINOR SCALE.

As in the major mode, the Tonic, Sub-dominant, and Dominant-triads are of the first consideration.

The character of the major is bright and aspiring; that of the minor is its antithesis, dark and dejected. Everything in the minor is the opposite of the major, therefore the Tonic-triad will be a *minor triad.* We find such an one upon A, as follows:—

a, C, e.

The Sub-dominant and Dominant of A are D and E; thus, we have as fundamentals:—

Sub-dom. Tonic. Dom.
d——a——e.

Contrary to the major mode, *minor* triads must be formed upon these fundamentals (see relationships of minor triads, page 39), thus:—

Sub-dom.-triad. Tonic-triad. Dom.-triad.
d, F, a, C, e, G, b.

These tones constitute the Normal Minor Mode, and, if arranged melodically, the result will be the Normal Minor Scale, thus:—

	1,	2,	3,	4,	5,	6,	7,	8.
Ascending:—	A,	b,	c,	d,	e,	f,	g,	a.
Descending:—	A,	g,	f,	e,	d,	c,	b,	a.
	8,	7,	6,	5,	4,	3,	2,	1.

Upon the two tones *related in the third* to the Tonic, *viz*: F and C, we find major triads, (see brackets ⌊‾⌋ in the following scheme).

d, F, a, C, e, G, b.

These triads have each two tones common to the Tonic-triad, and thereby are closely allied to that accord.

Upon two more distant tones, *viz:* B and G, we can also form triads, thus:

b, | d, F, a, C, e, G, b, | d.

The tones B, d, f, form a diminished, and G, b, d, a major triad, both of which are related to the Tonic-triad only through the triads of the Sub-dominant and Dominant.

RESUME OF TRIADS IN THE NORMAL MINOR MODE.

Three minor triads, respectively upon the Tonic, Sub-dominant, and Dominant. Three major triads: two upon those tones related in the third to the Tonic, and one on the 7th degree of the scale. One diminished triad, upon the second degree of the scale.

In the major mode, the *Sub*-dominant-triad was made milder by depressing or flatting its *third*. Opposite to this, the *Dominant*-triad in a minor mode, may be made bolder by *elevating* its *third*.

With this alteration, our scheme would present itself as follows:—

d, F, a, C, e, G♯, b.

The Tonic and Sub-dominant-triads remain minor accords, but the *Dominant*-triad is now *major*. The key can be equally well established with the proper use of these triads, or with those of the Normal Mode.

REMARK.—No such alteration can be allowed in the *third* of the *Sub*-dominant-triad in *minor* modes for the same reason that prohibits any alteration in the *Dominant*-triad of *major* modes, (see remark on that point, page 37). *The Sub-dominant-triad in a minor mode must always be minor.*

The alteration of the tone G to G♯, makes two additional triads possible, as per following scheme:—

d, F, a, C, e, G♯, b, | d.

The tones C, e, G♯, form an augmented triad on the third degree of the scale, and the tones G♯, b, d, a diminished triad on the *leading-tone* (G♯).

SECOND FORM OF MINOR SCALE.

Arranged alphabetically, commencing with the Tonic, the above scheme will give us the second form of a minor scale, thus:

	1,	2,	3,	4,	5,	6,	7,	8.
Ascending:—	A,	b,	c,	d,	e,	f,	g♯,	A.
Descending:—	A,	g♯,	f,	e,	d,	c,	b,	A.
	8,	7,	6,	5,	4,	3,	2,	1.

THIRD FORM OF MINOR SCALE.

Between F and G♯, the sixth and seventh degrees, there is an unpleasant interval, an augmented second, a progression decidedly unmelodic. To avoid this spring, the sixth degree may also be raised a small half-step producing thereby a melodic succession, as follows:—

1,	2,	3,	4,	5,	6,	7,	8.
A,	b,	c,	d,	e,	f♯,	g♯,	A.

In this *ascending* scale the minor character is imparted by the third degree (c) which stands a *minor third* from the Tonic, thus in a measure counteracting the effect of the F♯, which, *harmonically*, cannot appear in the scale of A minor. The reason is this: the tone F is a component part of the

Sub-dominant-triad, which, in a minor mode, must always remain a *minor* triad. The alteration to F♯ would create a *major* Sub-dominant-triad, hence, that tone cannot *harmonically* appear in the mode of A minor. The change, therefore, in order to improve the melodic character, can only be allowed where the harmonic element offers no objection.

In the *descending* scale of the third form, the foreign character of the tone F♯ to the scale of A minor, would be easily felt, as no tone precedes, tending to counteract that effect, as is the case in the *ascending* series.

In order, therefore, to preserve the *minor* character of the descending scale, it is necessary to use the stem-tone F♮, the third of the Sub-dominant-triad, and in order to avoid the spring from G♯ to F♮, the stem-tone G♮ is generally made use of.

The third form in full will be as follows:—

	1,	2,	3,	4,	5,	6,	7,	8.
Ascending:—	A,	b,	c,	d,	e,	f♯,	g♯,	A.
Descending:—	A,	g♮,	f♮,	e,	d,	c,	b,	A.
	8,	7,	6,	5,	4,	3,	2,	1.

The first form of the minor scale is undoubtedly the most correct, but the last is generally considered most practical for both vocalists and instrumentalists. The harmonic element however, influences the succession in such passages more than melodic considerations; hence, any one of the above forms are usable, according to the demands of that element. The introduction of altered tones as upon the 6th or 7th degrees of the scale (see second and third forms) must of course be effected by means of accidentals. The signature, as we shall see in the following chapter, relates only to the Normal or first form.

CHAPTER VII.

GENERATION OF SIGNATURES IN MINOR MODES.

We regard the mode of A minor as the Normal Minor Mode. According to its relationships all other minor modes are to be formed.

MODE OF D MINOR.

Taking for instance, as the Tonic, a next related tone to A, *viz:* D; our Tonic-triad will be—

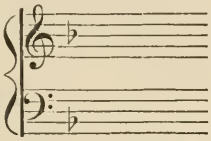
d, F, a.

Minor triads upon the Sub-dominant and Dominant of D, *viz:* G and A, together with the Tonic-triad just given, constitute the mode of D minor, thus:—

Sub-dom.-triad. *Tonic-triad.* *Dom.-triad.*

g, B♭, d, F, a, C, e.

Forming a *minor* triad upon G gives occasion for the use of a flat (B♭), therefore the mode of D minor has one flat and its signature will be as follows:—

86. 

SCALE OF D MINOR.

The above tones, arranged alphabetically, will furnish us the first form of the scale of D minor, thus:—

	1,	2,	3,	4,	5,	6,	7,	8.
Ascending:—	D,	e,	f,	g,	a,	b♭,	c,	D.
Descending:—	D,	c,	b♭,	a,	g,	f,	e,	D.
	8,	7,	6,	5,	4,	3,	2,	1.

The second form of the scale, caused by the introduction of the major Dominant-triad (a, C♯, e) into the mode, will be as follows:—

	1,	2,	3,	4,	5,	6,	7,	8.
Ascending:—	D,	e,	f,	g,	a,	b♭,	c♯,	D.
Descending:—	D,	c♯,	b♭,	a,	g,	f,	e,	D.
	8,	7,	6,	5,	4,	3,	2,	1.

The further alteration, in order to avoid the spring between the sixth and seventh degrees in the ascending scale, by elevating the sixth degree (here effected by cancelling the flat on B), and descending according to the Normal form, in order to preserve the minor character, gives us the third form, thus:—

	1,	2,	3,	4,	5,	6,	7,	8.
Ascending:—	D,	e,	f,	g,	a,	b♮,	c♯,	D.
Descending:—	D,	c♮,	b♭,	a,	g,	f,	e,	D.
	8,	7,	6,	5,	4,	3,	2,	1.

MODE OF E MINOR.

If we take the other nearest related tone to A, *viz:* E, as the Tonic of a minor mode, the Tonic-triad will be—

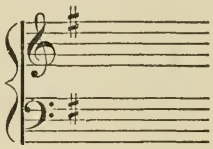
e, G, b.

Forming *minor* trlads upon the Sub-dominant and Dominant of E, *viz:* A and B, and uniting them to the above Tonic-triad, it will give us the mode of E minor, as follows:—

Sub-dom.-triad. Tonic-triad. Dom.-triad.

a, C, e, G, b, D, f♯.

This mode requiring the introduction of one sharp (F♯), its signature will be written thus:—

87. 

SCALE OF E MINOR.

We present here the three forms of this scale:—

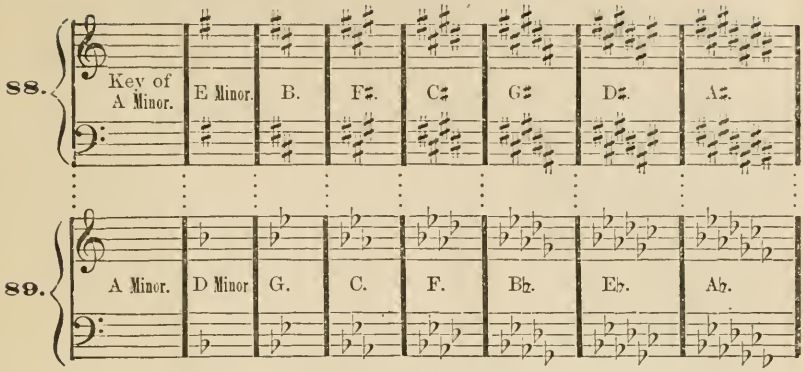
		1,	2,	3,	4,	5,	6,	7,	8.
1.	*Asc:*—	E,	f♯,	g,	a,	b,	c,	d,	E.
	Des:—	E,	d,	c,	b,	a,	g,	f♯,	E.
		8,	7,	6,	5,	4,	3,	2,	1.
2.	*Asc:*—	E,	f♯,	g,	a,	b,	c,	d♯,	E.
	Des:—	E,	d♯,	c,	b,	a,	g,	f♯,	E.
3.	*Asc:*—	E,	f♯,	g,	a,	b,	c♯,	d♯,	E.
	Des:—	E,	d♮,	c♮,	b,	a,	g,	f♯,	E.

In the foregoing manner, we can proceed in the formation of minor modes, using in turn each member of the tone-system as the Tonic. The sharps and flats succeed each other in the same order as in major modes, (see table, page 42). The figures in the following table indicate the order of succession of the Tonics in minor modes, and at the same time, the number of the flats or sharps contained in that mode.

(8), 7, 6, 5. 4, 3, 2, 1, 0, 1, 2. 3, 4, 5, 6, 7, (8).
d♭, a♭, e♭, b♭, | F, C, G, D, A, E, B, | f♯, c♯, g♯, d♯, a♯, e♯.

The mode of A minor (0) is without flat or sharp, and is therefore the Normal Mode. The mode of D minor has one flat; that of G, two flats, &c. E minor has one sharp, B minor, two sharps, &c. E♯ minor has eight sharps, the letter F being *double*-sharped, and D♭ minor has eight flats, the letter B being *double-flatted*, (see comments on this subject, in major modes, page 42).

TABLE OF SIGNATURES AND TONICS IN MINOR MODES.



PARALLEL MODES.

These are such as have the same stem-tones and signatures; for ex.: the modes of C major and A minor; the modes of E♭ major and C minor; F♯ major and D♯ minor; G♭ major and E♭ minor, etc.

EXERCISES.

The following series of exercises has been proven in the author's teaching to be of decided practical value, as it not only furnishes a brief summary or review of the last few chapters, for the benefit of the pupil, but also enables the teacher to ascertain the pupils proficiency on the points referred to. The intelligent teacher will of course present the questions in the manner and order which seems best adapted to each individual pupil.

Name the order in which sharps succeed each other.

Name the order in which flats succeed each other.

Name all major modes containing sharps, in order of succession, and the letters sharped in each mode.

Name all minor modes containing sharps, in order of succession, and the letters sharped.

Name all major modes containing flats, in order of succession, and the letters flatted.

Name all minor modes containing flats, in order of succession, and the letters flatted.

Name all parallel modes containing sharps.

Name all parallel modes containing flats.

Name the parallel modes of any given signature. (for ex.: the parallel modes of "one sharp" are G major and E minor).

REMARK.—The *last, deepest tone* of a composition generally shows whether a major or minor key is indicated by the signature. For the present, this is perhaps the best means of ascertaining this point.

Name the tones of each major scale containing sharps, and order of succession of the Tonics.

Name the tones of each major scale containing flats, and order of succession of the Tonics.

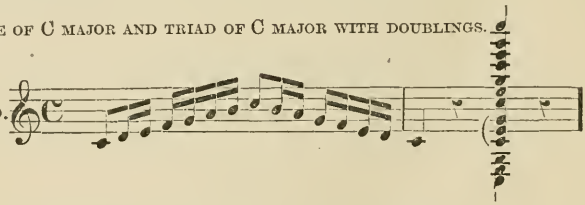
Name the tones of each minor scale (3d form) containing sharps, and order of succession of the Tonics.

Name the tones of each minor scale (3d form) containing flats, and order of succession of the Tonics.

The following examples should be *written* in each different key with their appropriate signatures:—

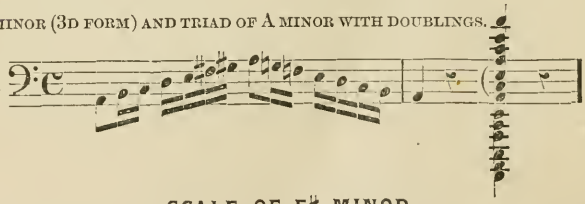
SCALE OF C MAJOR AND TRIAD OF C MAJOR WITH DOUBLINGS.

90.



SCALE OF A MINOR (3D FORM) AND TRIAD OF A MINOR WITH DOUBLINGS.

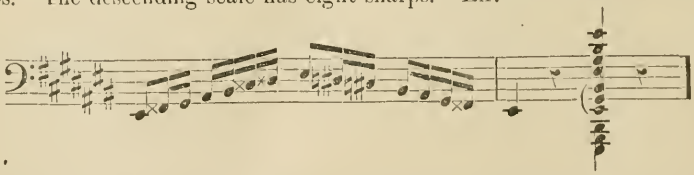
91.



SCALE OF E♯ MINOR.

The third form of the minor scale ascending, written in the key of E♯, has ten sharps, seven from the signature and three on account of accidental double-sharps. The descending scale has eight sharps. Ex:—

92.



The above example gives occasion to notice the method of restoring a tone, which has been *double*-sharped, to its former position with *one* sharp. In the above scale, the ascending series has a double-sharp upon the sixth and seventh degrees, (C × and D ×) which, in descending, must be restored to the stem-tones (D♯ and C♯). The natural (♮) first cancels the double-sharp *entire*, and the added sharp (♯) then raises the tone to the required position. The same process is pursued with double-flats, this sign, (♮♭), being used to effect the restoration.

Finally, the following exercises are recommended:—

Name the difference between major, minor, diminished and augmented triads.

Form the various triads upon different given *fundamentals.*

The teacher to give the letters forming various triads, and require the pupil to give the respective names.

REMARK TO THE TEACHER.—As yet, the *fundamental* position of the triad is the only one to be mentioned. The pupil to form verbally and in writing the major mode on various Tonics, according to the following:—

1st. Form the Tonic-triad.
2d. Form the Sub-dominant-triad.
3d. Form the Dominant-triad.
4th. Name the triads related in the third to the Tonic.
5th. Name the triad upon the second degree of the scale.
6th. Name the triad of the minor Sub-dominant.
7th. Name the triad upon the leading-tone.

Form minor modes upon various Tonics.

1st. Form the Tonic-triad.
2d. Form the Sub-dominant-triad.
3d. Form the Dominant-triad.
4th. Name the triads related in the third.
5th. Name the triads upon the second and seventh Normal scale-degrees.
6th. Name the major Dominant triad.
7th. Name the triad upon the leading-tone.

CHAPTER VIII.

RELATED ACCORDS AND MODES. SIMILAR-NAMED MODES.

Accords having one or more tones common to each other, are said to be *related.* In major modes, each of the minor triads related in the third have two tones common to the Tonic-triad. The brackets in the following scheme, will more clearly illustrate this relationship in the key of C major.

F, a, C, e, G, b, D.

The triads of the Sub-dominant and Dominant have one tone each common to the Tonic-triad (see following scheme).

d, | F, a, C, e, G, b, D.

The triad d, F, a, is closely related to the Sub-dominant-triad, and thereby traces its connection with the Tonic-triad. This chord-connection through an intermediate accord, we designate as a *relation in a second degree.*

SIMILAR-NAMED MODES.

In such modes; *i. e.*, a major and minor mode whose Tonic is the same tone, for ex., C major and C minor, the Tonic-triads have two tones common to each other (see scheme).

Mode of C Major: F, a, C, e, G, b, D.
Mode of C Minor: f, A♭, c, E♭, g, B♭, d.

The Sub-dominant-triad of the similar-named minor mode has also one tone common to the Tonic of the major mode, (the tone C in the above scheme).

The minor Dominant-triad (g, B♭, d), as previously remarked, cannot appear as a related accord to the mode of C major, notwithstanding the fact of its having one tone common to the Tonic-triad of that mode. Its character is so foreign to the key of C major, that so soon as it appears the key is changed. The closest chord-relationships to the Tonic-triad of a major mode are therefore as follows:—

The triads related in the third.

The Sub-dominant and Dominant-triad.

The triad upon the second degree of the scale.

The Tonic and Sub-dominant triads of the similiar-named mode.

Other chords more distantly related will be mentioned farther on.

RELATED MODES

The triads just mentioned, having been shown to be related, it now follows that the *modes*, whose *Tonics* are the *fundamentals* of these triads, are also related. The *related modes* of C major, therefore, are A and E minor; F and G major; C and F minor and the more distant mode of D minor.

The following scheme exhibits the Tonics of the related modes to C major; the capitals indicate the major, and the small letters the minor Tonics, and the brackets etc., trace the relationship to C, whether direct or indirect:—

d, | F, a,—C—e, G.
f, c.

RELATED TRIADS IN MINOR MODES.

Having considered the relationships in major modes, we turn now to those in minor, and find upon those tones related in the third two *major* triads, each

having two tones common to the Tonic-triad, thus:—

d, F, a, C, e, G, b.

Further, the two minor triads upon the Sub-dominant and Dominant have each one tone common to the Tonic-triad.

d, F, a, C, e, G, b, | D.

The triad G, b, D, has two tones (G and B) common to the Dominant-triad, and thereby claims a secondary relationship with the Tonic-triad. As will be remarked, this triad is the exact opposite of the correspondingly related triad in the major mode. That in the major mode was a *minor* triad, related to the Tonic-triad through that of the *Sub*-dominant. This one, in the minor mode, is a *major* triad related to the Tonic-triad through that of the *Dominant.*

SIMILAR-NAMED MODE.

The similar-named mode of A minor is A major. The Tonic-triads of these two modes have two tones common to each other. The Dominant-triad of the major mode (E, g♯, B), has also one tone common to the Tonic-triad of the minor mode (see scheme).

d, F, a, C, e, G, b.
D, f♯, A, c♯, E, g♯, B.

The major Sub-dominant-triad (D, f♯, A), however, occupies the same position towards the Tonic-triad of a minor mode that the minor Dominant-triad occupies towards that of a major mode. Its character is too foreign to enable it to be counted as a related accord.

The closest chord-relationships in minor modes are therefore:—

The Tonic-triad and those triads related in the third;

The Tonic-triad and Sub-dominant and Dominant triads;

The Tonic-triad and that triad upon the seventh degree of the scale;

The Tonic-triad and the Tonic and Dominant-triads of the similar-named mode.

RELATED MODES.

As in major, so in minor, the *related modes* are those *whose tonics* are the *fundamentals* of *related accords.* The related modes of A minor are therefore F and C major, D and E minor, and the more distant modes of G, A and E major, (see following scheme).

d, F—a—C, e, | G
A, E.

Other related accords and modes will be indicated in the proper place, the present purpose being fully served by the foregoing.

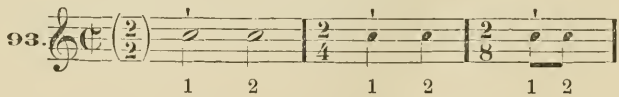
CHAPTER IX.

CONTINUATION OF THE CHAPTER ON METER AND RHYTHM.

As remarked upon page 15, in order that a composition may be more easily comprehended, both by executant and auditor, it is divided into small sections of equal duration called Measures. These measures are sub-divided into two, three or more equal parts called Measural Divisions, and finally, *accents* are applied to certain regularly recurring parts according to the following principle, *viz: Of every two metrical members, the first is accented, and the second unaccented.*

TWO-PART METER.

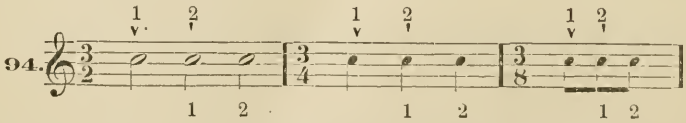
In the following examples, the meter is each time two-part, and, as this furnishes two metrical members, the first part will be accented and the second unaccented, according to the above principle.



If, in two-part meter, the metrical divisions are half notes, as in the first of the above examples, the time can be indicated either by the figures $\left(\frac{2}{2}\right)$ or by the letter 𝄵 with a perpendicular stroke through it, thus: 𝄵. The time is called in such cases Alla Breve, and the accent falls on only the first part.

THREE PART METER.

In measnres of three parts there are two accents, one on the *first* and the other on the *second, e. g.*



An accent more or less forcible falls upon each alternate note or part. *After a stroke comes the recoil;* hence the origin of the foregoing principle, "Of every two metrical members," etc.

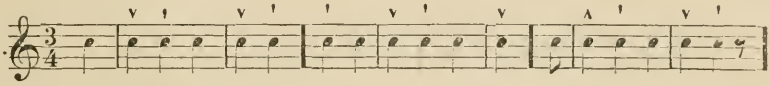
In three-part meter, the *second* part stands as a *first metrical member* to the third part, consequently, the second part, as well as the first, is accented (see example), but, as this *second* part must also stand as the *recoil*, so to speak, of the *first* part, its accent cannot be so intense or forcible as that on the *first* part.

PRIMARY AND SECONDARY ACCENT.

Here arises two degrees of accent, the strongest of which falls always upon the first part. This will be called the Primary accent, and the other the Secondary accent. All other varieties of meter are compounds of the two above mentioned.

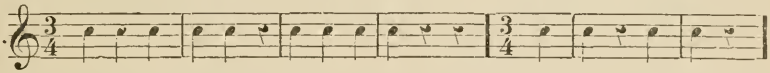
A composition may begin upon an accented or unaccented part of the measure at pleasure. In case it begins with a fractional part of a measure, an equal length of time must be deducted from the last measure of the movement or piece, so that the two fractional parts may together make *one full measure* (see following examples).

95.



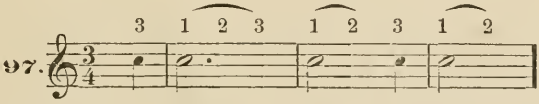
Rests may take the place of notes, *e. g.*

96.



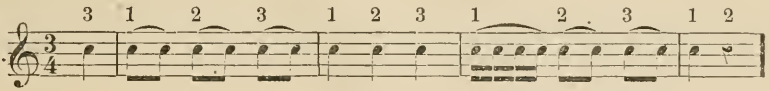
Several or all of the parts of a measure may be contracted into one note equal to their united duration, *e. g.*

97.



One, several, or all of the parts of a measure may be sub-divided into notes of shorter duration, *e. g.*

98.

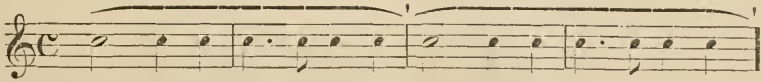


The regular succession of the equal divisions of time which compose the measures, as we have already stated, is called the Meter, and the diversified method of filling out the Meter, as suggested above, is termed the Rhythm.

BI-MEASURAL RHYTHM.

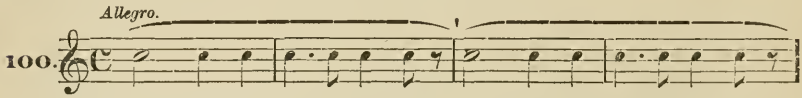
If *two* measures, rhythmically ordered, are succeeded by two others containing the same rhythm, the passage is said to be in *bi-measural rhythm.* To preserve or to secure perfect symmetry, it is always necessary that a definite rhythm be repeated. Ex.:—

99



A cœsura or rhythmical punctuation point occurs at the end of each section. In writing, this may be indicated by a point (ˈ), and in performance by an instant's silence between the sections, the time of which is to be taken

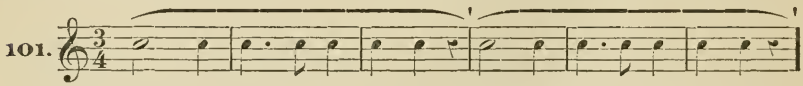
from the final note of each section. Written with strict regard to punctuation, the above example, in *Allegro tempo*, would be correctly expressed as follows, *i. e.*, with an eighth-rest at the close of each section:—



Few writers, however, are so scrupulous in this respect, presuming that the executant's culture in the art of phrasing is such as not to require punctuation points.

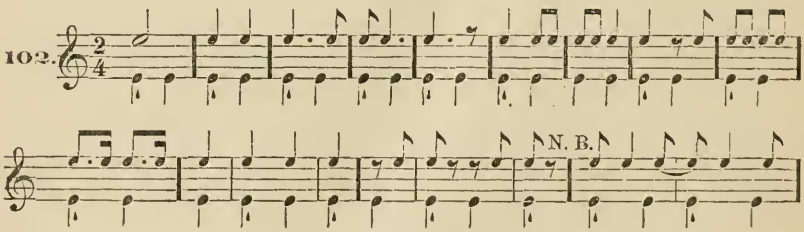
TRI-MEASURAL RHYTHM.

A passage, in which *three* measures, rhythmically ordered, are succeeded by three others of like rhythm, is said to be in *tri-measural rhythm*, for ex.:—



The varieties of rhythm most easily comprehended and retained are those whose sections contain two, three, four or eight measures. More than eight is difficult for the auditor to keep in mind.

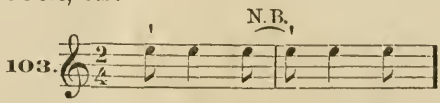
Rhythm is one of the most varied and effective agents which the composer can call to his aid. To illustrate this, we give below a few examples of the possible varieties of rhythm in two-part meter. The lower notes indicate the *metric* succession and accents, and the upper notes the *rhythmic*.



SYNCOPE.

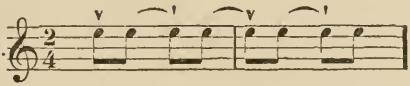
At N.B. of the above example, a rhythm arises which is called Syncopation. A Syncope is a note whose entrance takes place unaccented, and whose duration continues past the next recurring accent.

In the example here, *viz:*



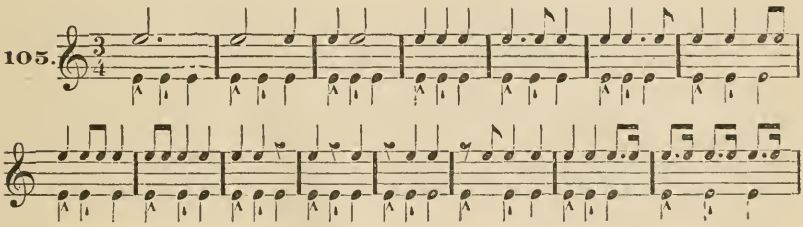
the tied note at N.B. enters unaccented, and the next accent falls while this note is being sustained. There are really *four* metrical members in each of

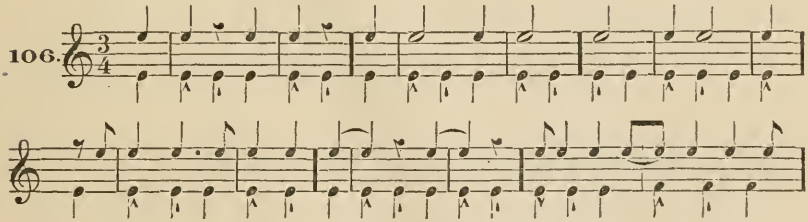
the above measures, instead of two, as will be seen if the notes are reduced to the same kind throughout, thus:—

104. 

There being four metrical members, it yields two accents in each measure, a *primary* and *secondary* upon the first and third parts respectively. In the original example, the second and third parts were expressed by quarter-notes in each measure, and, according to the last method of writing, those quarter-notes enter unaccented but are held past the next recurring accent (see Ex. 104). They are therefore syncopes, as well as the tied note.

The following are a few examples of the varieties of rhythm in three-part meter, the lower notes, as before, showing the metric succession and accents, and the upper the rhythmic.

105. 

106. 

VARIETIES OF MEASURE.

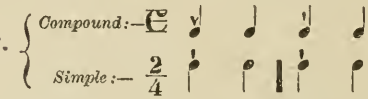
There are two kinds of simple measure, one with two parts (Even Measure), and the other with three (Uneven Measure). The *duration* of each part, whether half-note, or quarter-note etc., makes no difference whatever with the *kind* of measure; that is determined simply by the *number* of parts. The varieties of simple measure are as follows:—

Even:— $\frac{2}{2}$ $\frac{2}{4}$ $\frac{2}{8}$

Uneven:— $\frac{3}{2}$ $\frac{3}{4}$ $\frac{3}{8}$

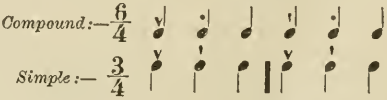
COMPOUND MEASURES.

All other kinds of measure are compounds of the two above given. For ex: $\frac{4}{4}$, or "common time," as it is frequently called, is a compound of $\frac{2}{4}$, thus:—

107. 

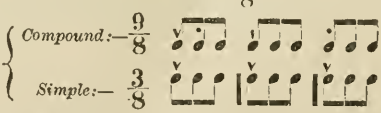
The difference between simple and compound measures lies in the intensity of the accents; thus, in the above example, the common or $\frac{4}{4}$ time has a *secondary* accent on its third part, whereas the $\frac{2}{4}$, from which the $\frac{4}{4}$ is compounded, has a *primary* accent upon this point, it being a *first* part in the simple measure.

In like manner, $\frac{6}{4}$ time is the compound of $\frac{3}{4}$, *e. g.*

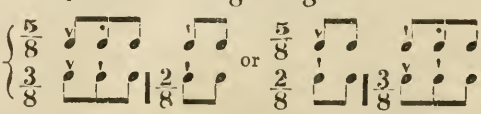
108. 

In $\frac{3}{4}$ time the accents are *primary* and *secondary*, respectively upon the first and second parts, while in $\frac{6}{4}$ time, the *secondary* accent falls upon the fourth part, and still lighter or *tertiary* accents on the second and fifth parts (indicated by dots), these latter corresponding to the places of the *secondary* accents in $\frac{3}{4}$ time.

Measures in $\frac{9}{8}$ time are compounded from $\frac{3}{8}$, *e. g.*

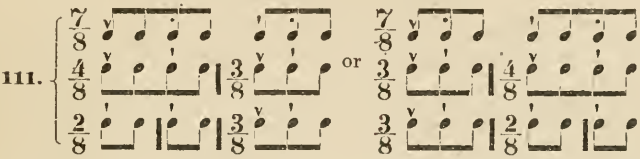
109. 

The accents in $\frac{9}{8}$ time are *primary*, *secondary* and *tertiary*, falling respectively upon the first, fourth and seventh parts, while, in the simple measures ($\frac{3}{8}$) compounding the $\frac{9}{8}$ time, each of those accents were *primary*. Measures in $\frac{5}{8}$ time are compounded from $\frac{3}{8}$ and $\frac{2}{8}$ thus:—

110. 

In $\frac{5}{8}$ time, we have given two modes of accent, either of which is correct, the *secondary* falling on the third, or fourth part at will. This, of course, controls the fall of the *tertiary* accent, causing it to occur upon the fifth or second part, according as the *secondary* falls on the third or fourth parts. Similar to the last example, $\frac{7}{8}$ time is a compound of $\frac{4}{8}$ and $\frac{3}{8}$, (See second line in

Ex. 111) and, as $\frac{4}{8}$ is a compound of $\frac{2}{8}$ (see third line in Example 111), it follows that $\frac{7}{8}$ is partly a double-compound. Its *secondary* and *tertiary* accents vary, there being two modes of grouping, on account of the uneven number of parts, the same as in $\frac{5}{8}$ time, *e. g.*



On account of the irregular fall of the accent, measures containing five or seven parts are seldom used: their performance requires at least both the *primary* and *secondary* accent if intelligibility is to be ensured. There is also a very slight accent on the third or sixth part, according to the place of the *secondary.* An error is fallen into occasionally in regard to the placing of the accents in $\frac{6}{8}$ time and $\frac{3}{4}$ time, when the rhythm of each moves in eighth-notes. Ex. 112 presents the correct accentuation in both cases.

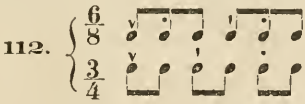
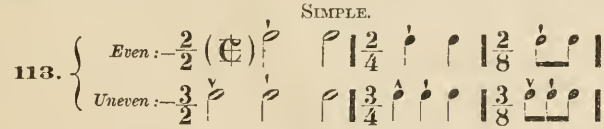
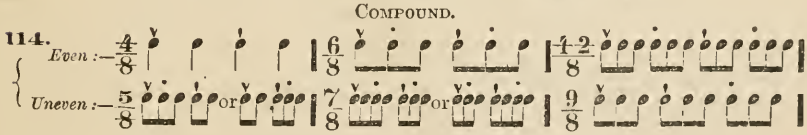


TABLE OF ACCENTS OF ALL EVEN, UNEVEN, SIMPLE AND COMPOUND MEASURES.

SIMPLE.

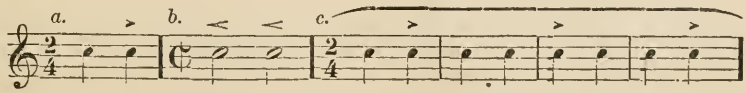


COMPOUND.



ARTIFICIAL ACCENTS.

These are such as are temporarily applied in order to express any certain desired effect which would not be secured by the ordinary accents, for ex.:—



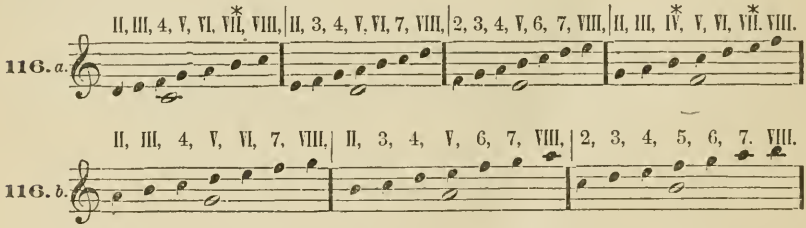
At *a*, Ex. 115, an artificial accent is applied on an unaccented part of the measure, more intense than the *primary;* at *b*, the accents are replaced by sudden *crescendos;* at *c*, a passage in $\frac{2}{4}$ time is made to produce the effect of $\frac{3}{4}$. &c.

CHAPTER X.

FORMATION OF MELODIES, MELODIC PASSAGES AND CLOSES, OR FINAL CADENCES.

The first efforts should be simple and entirely singable; therefore, such intervals should be chosen as are naturally melodic, and the unmelodic avoided.

Among all the intervals that it is possible to form *with the stem-tones* of a major mode, only *three* are unmelodic; one, a major fourth, the other two, major sevenths. We present below, a table of all the intervals in C major, starting from each tone in the mode.



The asterisks (*) note the *unmelodic* intervals; all the rest are melodic. We find, then, by way of recapitulation, that the most melodic, most singable intervals are—

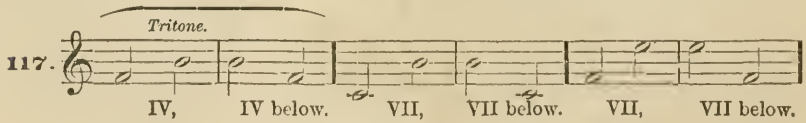
Major and minor seconds;
Major and minor thirds;
..... *minor fourths;*
Major and minor fifths;
Major and minor sixths;
..... *minor sevenths;*
Major..... *octaves.*

The unmelodic intervals are—

Major fourths;
Major sevenths.

THE TRI-TONE.

The major fourth is called a Tri-tone, on account of its compass being three whole steps. In the mode of C major, it occurs between F and B, and the major sevenths between C and B, and F and E, thus:—

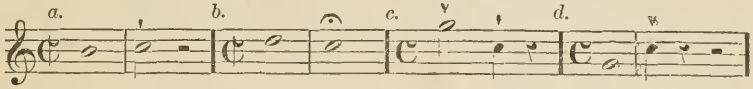


Further, all *diminished* and *augmented* intervals, in addition to the major fourth and major seventh, are unmelodic, though, in modern compositions, they often appear, and, by artistic manipulation, are made singable. For the present, it will be better to avoid their use.

MELODIC CLOSE.

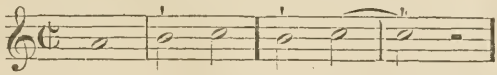
The close or final note of a melody must begin and end upon an accented part of the measure, and, further, upon one of the tones of the Tonic-triad. The Tonic, itself, furnishes the firmest, most satisfactory close; the *third* is less complete, and the *fifth* is the weakest of the three. The *Tonic*, therefore, will best answer our present purpose, and it is to be remarked that the tones best adapted to precede the Tonic in a melodic close, are the *leading-tone* (a half-step below); the *major second* (a whole-step above), and the *Dominant*, used above or below (not the *Sub*-dominant), *e. g.*

VARIETIES OF CLOSE UPON THE TONIC IN MAJOR MODES.

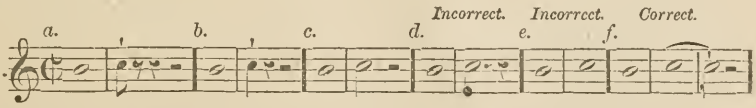
118. 

It is stated above that the final note of a melody must begin and end upon an accented part of the measure.

At *a*, Ex. 118, the time being *alla breve*, the accent falls only on the *first* part of the measure, therefore the *final-note* must *begin* with *that part.* The following closes according to this, would be incorrect, inasmuch as the final note *enters* or is begun in both cases *unaccented*, *e. g.*

119. 

Again, as the time is *alla breve*, the metrical divisions are half-notes, therefore the final note, in order to *end* on an *accented part* of the same measure, must not be *longer* than a half-note; any note shorter than that is quite correct (See Ex's. below), or in case of a tied note prolonging the close into a succeeding measure, as at *f* in Ex. 120, the final, or last note of the tie must not exceed a half-note.

120. 

The final note in Ex's. *d.* and *e*, being longer than a half-note, their close would take place *unaccented;* they are therefore incorrect. At *b*, of Ex. 118, the time is, as before, *alla breve;* the final note is a *whole-note*, which of itself would end unaccented, but a pause (𝄐) is placed over it, and the performer is left to sustain it indefinitely, always remembering, however, to *suspend the tone upon the accent.*

This is an invariable rule with regard to the observance of the pause, a rule which, through carelessness or ignorance, is often disregarded. At *c* and *d*, Ex. 118, the time being $\frac{4}{4}$ or common-time, there are accents upon the first and third parts of the measure; hence, the final note may enter and close upon either of those parts.

VARIETIES OF CLOSE UPON THE TONIC IN MINOR MODES.

121. *a.* *b.* *c.* *d.*

In $\frac{3}{4}$ time, it will be remembered that there are two accents, a *primary* and *secondary*, upon the first and second parts of the measure. The *final* note may *begin* and *end* on either of these parts, or it may begin on the first and end on the second, as at *a* of Ex. 121. At *b*, of the same example, the final note fills the measure and would end, were it not for the pause, upon an unaccented part; the pause, however, prolongs it at will, but must finally cease on an accent; for ex., supposing, instead of the pause, the prolongation were written out, it would necessarily be expressed similar to the following examples:—

122. or or etc.

The foregoing are the firmest melodic closes; others will follow in their proper places.

FORMATION OF MELODIES.

The first note of a melody (in the primary efforts at least) should be one of the tones of the Tonic-triad, as this is most natural and most singable. The simplest form of a melody is that in bi-measural rhythm. The first thing to be done is the formation of two measures, in any rhythm which the fancy of the composer may dictate, for ex.:—

123.

SECTION.

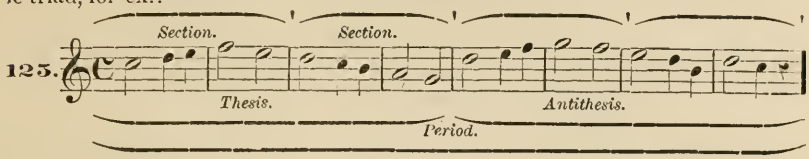
The two measures thus rhythmically ordered, *i. e.*, possessing well-defined motion and ending with a certain degree of repose, constitute a Section, and, in order to fulfill all the conditions of bi-measural rhythm, there must be two additional measures containing the same rhythm, for ex.:—

124.

THESIS AND ANTITHESIS.

The union of two sections is called a Thesis or Proposition, thus implying that an Antithesis or Conclusion is to follow. The symmetry must be preserved, therefore, the *antithesis* will also be constructed of *two sections*, of two

measures each, in rhythm similar to the *thesis*, and the succession of tones so framed as to secure a close in the last measure upon some member of the Tonic-triad, for ex.:—

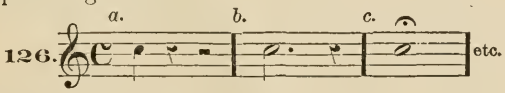


PERIOD.

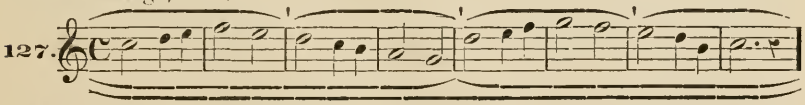
The union of a *thesis* and *antithesis* forms a complete sentence, and is therefore termed a Period or Melody.

The last note in the above melody differs in length from the last notes of other sections, in order to secure an accented close. It would have been incorrect to have used a half-note as in the other sections, because the close would have then occurred upon the *fourth* part of the measure, which is here unaccented (see melodic closes, pages 61 and 62). The melody now ends upon the *secondary* accent, but, by a further change of the rhythm in the last measure, the final note may enter upon the *primary* accent, thereby securing a firmer close.

Substitute either of the following endings for the last measure of our melody, and the point is gained:—



We will make use of the ending at *b*, and present the above melody again, with the change, thus:—

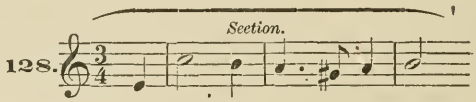


We have here a very simple, but complete and strictly-formed melody, in bi-measural rhythm. It contains a thesis and antithesis of two sections each; the rhythm of all the sections excepting the last, for reasons above given, is exactly alike; they contain two measures each; only *melodic* intervals have been used; the commencing and closing note of the period is the Tonic, and the final note enters and ends upon an accented measural division. These are the essential points to be borne in mind in the individual efforts of the pupil, which should now be begun.

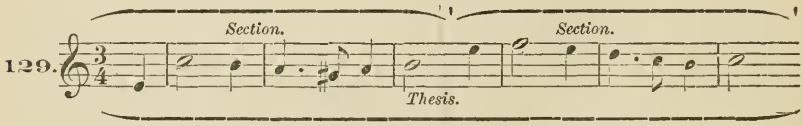
MELODIES IN TRI-MEASURAL RHYTHM.

In the foregoing manner, we can construct melodies in *tri*-measural rhythm; *i. e.*, the sections will be composed of three measures each. We proceed first to form a section containing three measures of pleasing melodic and rhythmic

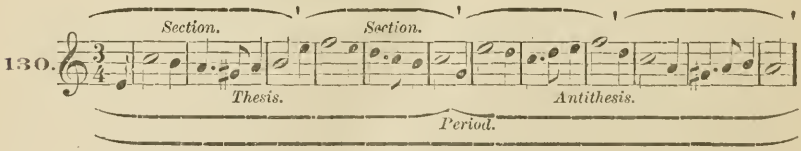
flow, which will serve as the first section of the thesis. Choosing the key of A minor, we will begin the melody, for example, with the Dominant, and on a fractional part of the measure in $\frac{3}{4}$ time, thus:—



The second section will naturally begin on the same part of the measure as its predecessor, *viz:* upon the *third*, in order to set forth the same rhythm, and the union of these two sections will constitute the thesis, thus:—



The antithesis will have the same number of sections, measures and rhythm, remembering to close upon an accented measural-division. Note also what was said on page 61 about the note *preceding* the *final* Tonic; the *leading note* is best adapted thereto, since its natural progression is to the Tonic. The major second of the Tonic is less decisive, and the Dominant still less so, yet either are acceptable. In the present melody (Ex. 130), the cadence is so formed as to introduce both the leading-tone and the major second. This is, of course, more decisively indicative of the Tonic or key-note of the melody than either of them would be alone, *e. g.*



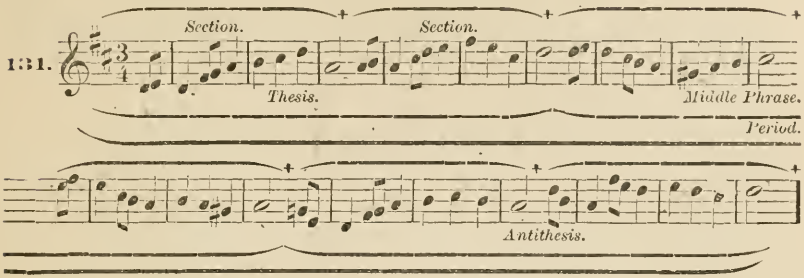
Referring to what was said on page 55 about fractional measures, we shall see that as the above melody begins upon the *third* part of the measure, just that length of time (a quarter-note here) must be deducted from the time of the last measure, thus leaving for that measure the value of two quarter-notes (see last measure of the above).

In the same manner as above, melodies may be formed containing in each section, four, five, six or more measures at the discretion of the composer. Those most intelligible, however, generally contain sections with two, four or eight measures.

MIDDLE PHRASE.

There are also periods or melodies in which a Middle Phrase occurs between the thesis and antithesis. We present such a melody below, remarking that its construction was effected precisely like the foregoing examples, also, that

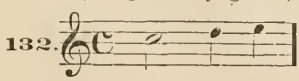
the middle phrase digresses to a related key (A major), a change tending not only to prevent monotony but gaining variety of effect.



It will be noticed that after the digression in the middle phrase to A major,—a digression which is indicated most strongly by the use of the leading-tone (G♯) of that mode,—the antithesis commences with a return to the original key, (D major), and very nearly repeats the thesis. This is often done in this species of melody as it secures greater unity of character, and forms, so to speak, a symmetrical setting for the middle phrase. Just enough alteration is made here to characterize the last section as a cadence. The foregoing observations and examples are intended to set forth only the extremest laws in regard to melodic symmetry. Deviations are always allowable, provided they are made intelligently. The subject of melodic development and embellishment will be duly discussed, therefore it is advisable that the pupils efforts, for the present, be directed toward the simpler melodic and rhythmic forms.

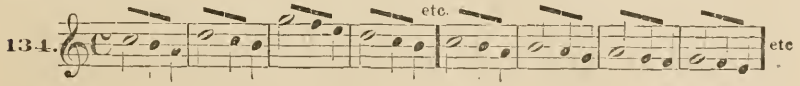
FORMATION OF MELODIC PASSAGES.

We will close this chapter with a few examples of the manner in which a melodic group of two or more notes may be almost indefinitely extended. We have already alluded to this subject on pages 21 and 22, but deem a supplement advantageous if not necessary at this point. We will make use of the first measure of the melody begun on page 62, *viz:*

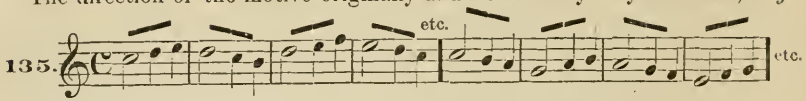


formed of a half-note and two quarter-notes occupying contiguous staff-degrees to each other. A passage may be formed by repeating this group upon higher or lower degrees of the staff, *e. g.*

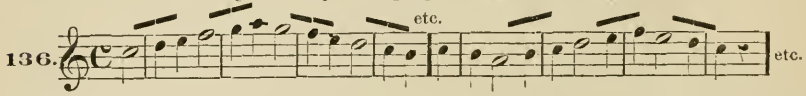
The notes in our group all *ascend;* they can all fall, thereby producing contrary motion, *e. g.*



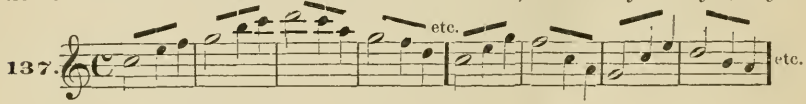
The direction of the motive originally and its contrary may alternate, *e. g.*



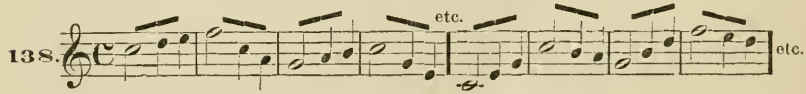
A different effect is gained by changing the fall of the accent, *e. g.*



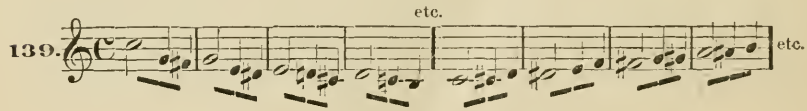
The tones of the original motive occupied contiguous staff-degrees. Passages formed in the same manner are said to be in *strict style.* The introduction of different intervals from those in the motive, is termed *free style*, *e. g.*



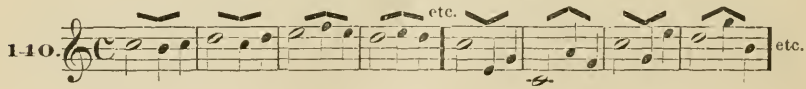
The strict and free style may be united, *e. g.*



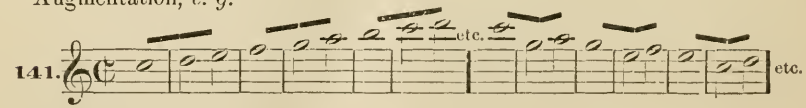
Chromatic tones may be employed, *e. g.*



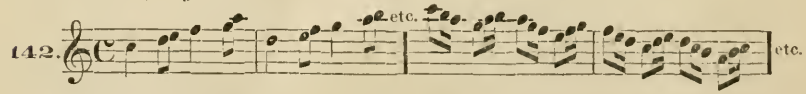
The direction of a part of the motive may be altered, *e. g.*



Augmentation, *e. g.*



Diminution, *e. g.*



It should be remarked that an efficient way of constructing passages from short motives, is to repeat the motive in such a way as to increase its compass, as seen in the first half of the last example. Sequences or repetitions of this longer motive may then follow, thus adding greatly to the number and variety of the passages possible to form. The above are a few, only, of the multitude

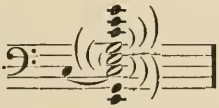
of variations possible to this single group of three notes. Thorough practice with various motives is earnestly recommended, since by means of this, more than anything else, skill in the invention and development of themes is acquired. Readiness in this art is, to the composer, what a fine *technique* is to the pianist,—a means to an end.

CHAPTER XI.

THE CONSONANT TRIAD. VARIOUS POSITIONS OF TRIADS.

Whether major or minor, this triad contains only consonant intervals, and the duplication or doubling of any or all of its tones effects no alteration; on the contrary, if each tone is once doubled, above and below, we shall find that the chord contains *all* the consonances which exist in the sphere of music. Ex. 143 presents the consonant major triad with duplications above and below:—

143.

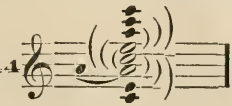


The intervals indicated by the curved lines are as follows:—

A major prime (C and C).
A major third (C and E).
A major fifth (C and G).
A major sixth (G and E).
A major octave (C and C, E and E, G and G).
A minor third (E and G).
A minor fourth (G and C).
A minor sixth (E and C).

These constitute the consonant intervals; all others whatsoever are dissonant, and the introduction of any other interval into the above triad (Ex. 143) would cause the whole chord to become dissonant. All these consonances are present in the minor triad; that accord is therefore consonant, *e. g.*

144.



DIFFERENT VOICES.

In the following studies, we shall have to deal in general with harmonies containing four parts, which will be termed Voices. They will be further designated after the principal divisions of the human voice; thus, the highest part

will be called the Soprano; the next to the highest, Alto; the next to the lowest, Tenor; and the lowest of all, Bass. We shall refer to the Soprano as the *upper voice;* to the Bass as *lower vôice,* and to the Alto and Tenor as *middle voices;* collectively, the Soprano and Bass will be spoken of as *outer voices.*

The compass of the respective voices in ordinary cases is as follows:—

145. a. Soprano. b. Alto. c. Tenor. d. Tenor. e. Bass.

When using the G clef, the Tenor is sung an octave lower, in the compass indicated by the Bass or F clef at *d.*

THE BASS.

The Bass of an accord is *always* the *lowest tone,* it matters not how high or how low the accord may be situated, *e. g.*

146. a. b. c.

At *a,* of the above ex. the Bass of the accord is C, its lowest tone; at *b,* the Bass is E; and at *c,* it is G.

THE FUNDAMENTAL.

The Fundamental Bass, or simply *fundamental,* differs from the ordinary Bass, in being that tone over which all the other tones of the accord stand third-wise; *i. e.,* in thirds, one above the other, or over which those tones can be so arranged. To discover the *fundamental,* all the tones must be brought into the third-wise position, if not already so, and then the *fundamental* will be the *lowest* tone. In the examples immediately following, the *fundamental* in each accord is indicated by a whole note.

147.

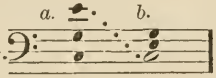
The above triad already presents the third-wise position; therefore, C is the *fundamental.* It is also the Bass, since it is the lowest tone.

148. a. b.

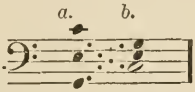
The accord at *a,* Ex. 148, is not already in the third-wise position, its component intervals being a third (E—G) and a fourth (G—C). The *Bass* is E, but the *fundamental* is only to be learned by arranging the triad in the third-wise position, which is accomplished by transposing the C an octave lower, as at *b,*

(same ex); C, then, is the *fundamental*, whether the chord stand as at *a* or as at *b*, while the Bass in one case is E, and in the other, C.

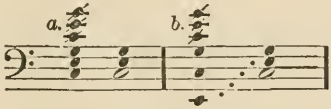
In the following ex. at *a*, we find a fifth (C—G) and a sixth (G—E), but, by placing the E an octave lower, as at *b*, the third-wise position is gained, showing C, as before, to be the *fundamental*:—

149. 

In Ex. 150 at *a*, we have two sixths (G—E and E—C). In order to discover the *fundamental*, it will be necessary to transpose the G an octave higher, and the C an octave lower, as at *b*. As before, the *fundamental* is C, *e. g.*

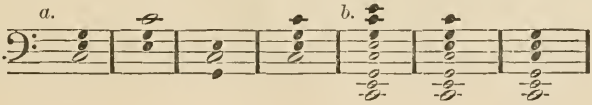
150. 

Duplicate tones, as in Ex. 151, *a*, *b*, are to be disregarded in the endeavor to discover the *fundamental;* first, cancel such tones, and then, if necessary, arrange the remainder in the third-wise position and the *fundamental* will appear, *e. g.*

151. 

CLOSE POSITION.

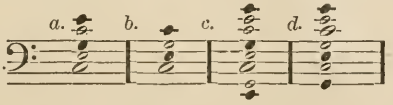
The Close Position of an accord is that in which the staff-degrees corresponding to the letters of that accord are contiguously occupied, *e. g.*

152. 

In the last three examples, at *b*, only the upper three voices are in close position, since, between the Bass and Tenor, there are several chord-degrees unoccupied (indicated by the cipher, 0).

OPEN OR DISPERSED POSITION.

This is naturally the opposite of the close position; it is that position of an accord, the voices of which do not occupy each contiguous chord-degree, *e. g.*

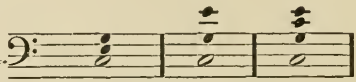
153. 

At *a*, Ex. 153, there are two chord-degrees unoccupied, an E and C; the accord is therefore said to be in open position. The same is to be said of the chords at *b*, *c* and *d*.

FUNDAMENTAL POSITION OF A TRIAD. (Major, Minor, Diminished or Augmented).

This is that position in which the *fundamental* is the *lowest tone* of the accord, whether arranged in close or open position, *e. g.*

154.

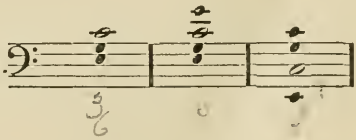


We shall also designate this position as Third-Fifth Accord, its intervals being a *third* and *fifth*, or, as Chord of the Third and Fifth, though the preceding is be preferred on account of its brevity.

A consonant (*i. e.*, major or minor) triad in the *fundamental* position possesses the most inherent independence of any combination of tones, for the simple reason that it rests upon the *fundamental* or foundation tone.

THE THIRD-SIXTH POSITION OF A TRIAD is that arrangement of its tones, open or close, in which the *third* of the *fundamental* appears as the *lowest tone* or *Bass*, *e. g.*

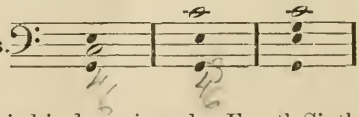
155.



The intervals presented in this position of the triad are a *third* and *sixth;* hence the name, Third-Sixth Accord: it is also termed a Chord of the Third and Sixth. If consonant, it possesses a certain degree of inherent independence, but less than the *fundamental* position.

THE FOURTH-SIXTH POSITION OF A TRIAD is that in which the *fifth* of the *fundamental* appears as the *Bass*, *e. g.*

156.

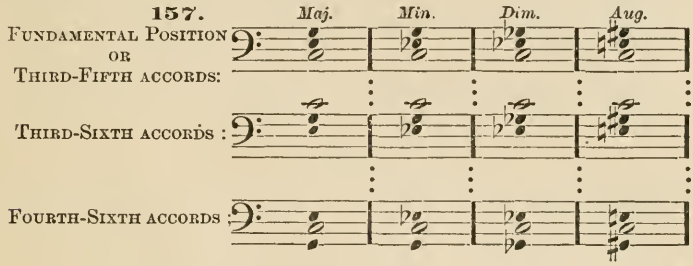


This position of a triad is denominated a Fourth-Sixth Accord, or Chord of the Fourth and Sixth, since its intervals are a *fourth* and *sixth*. It possesses no inherent independence whatever, and can only be employed in connection with other harmonies, and never as a closing accord. The arrangement of the tones in this position is, so to speak, like standing a cone upon its apex; there is no self-balance.

REMARK.—By some theorists, the foregoing are denominated Fundamental Position and First and Second Inversions of the triad; by others they are designated as First, Second and Third Positions of the triad, etc.

We give, below, a table showing the three positions of a major, minor, diminished and augmented triad upon C as the *fundamental*, and suggest to the student the advisability of working out a similar table upon each of the other letters as *fundamentals*.

157.



This oral exercise should then follow:—

1. Let the teacher give any letter as *fundamental* and require the pupil to name the letters forming the Fundamental position (close) of a major, minor, diminished or augmented triad upon that *fundamental*. Then, give the arrangement of the letters necessary to form the Third-Sixth and Fourth-Sixth positions of the various kinds of triad.

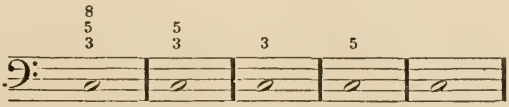
2. Let the teacher name the letters forming a triad and require the pupil to give the *fundamental* thereof, and also the position in which the letters stand, for ex.:—Teacher: "Name the fundamental and position of the triad E, G, C." Pupil: "It is the triad of C major and its Third-Sixth position." After considerable familiarity with the close positions has been attained, exercises should follow upon triads in open position. In these, the difficulty to the pupil will be lessened if he instantly arranges the tones in his mind in *close* position, as they are given out by the teacher, building up the chord upon the first given letter as the Bass.

CHAPTER XII.

Figured Bass, (Thorough Bass, General Bass, etc). *Duplication, Omission, Voice Motion.*

The remaining tones of an accord above the Bass can be indicated by means of figures, *e. g.*

158.



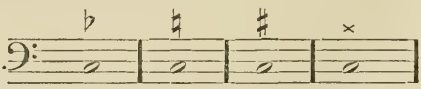
Each of the above methods are employed to indicate to the performer that the remaining tones of the triad in its Fundamental position are to be added

to the Bass, C, *viz:* the *third* (E), *fifth* (G) and usually the *octave* (C). The absence of the figure in the last of the above examples is to be construed as indicating the same thing as the figures in those preceding.

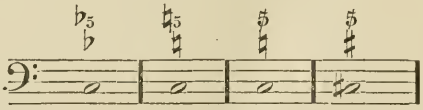
The exact *arrangement* of the abbreviated voices, one above the other, must be left entirely to the performer's good judgment, as the figures do not pretend in the least to indicate any one of the multiform arrangements of the tones possible to even one position. The *connection of the harmonies*, one after the other, is, however, a matter which the thorough study of Harmony will make clear.

ACCIDENTALS.

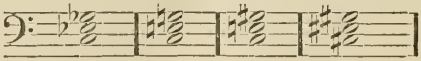
A single accidental, in place of a figure, *always refers to the third of the note* over or under which it is placed, *e. g.*

159. 

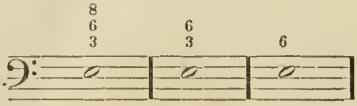
The *third* of C, *viz:* E, is hereby flatted, made natural or sharped according to sign applied. It is usual to indicate the *sharping* of any other interval than the *third* by means of a stroke through the figure, thus:—2, 4, 5, 6, 7, instead of a *sharp* placed before the figure, thus:—♯2. If a *flat* or *natural* occurs they are placed as in the following ex.:—

160. 

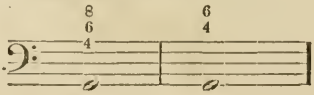
If Ex. 160 were written out, instead of being abbreviated, it would appear, according to *one* of the many ways of placing the tones, as follows:—

161. 

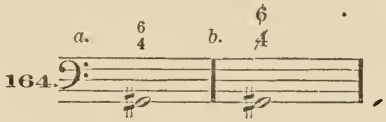
The mode of figuring or abbreviating the Third-sixth position, or Third-sixth accord, is as follows, (Ex. 162), the last occurring perhaps the oftenest. The figure 6 is always necessary in abbreviating this position, but should either of the other intervals be altered by accidentals, their representative figures and accidental signs must also be added.

162. 

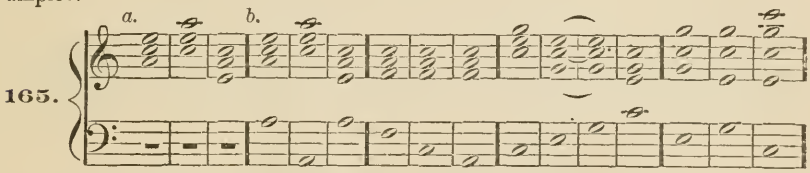
The Fourth-sixth position, or Fourth-sixth accord is always abbreviated by one of the two methods indicated in the following ex.:—

163. 

Care must be taken to indicate the figured members of the harmony correctly: for instance, if it were desired to abbreviate the accord G♯, C♯, E♯, it would not be sufficient to place the simple figures 4 and 6 over the Bass (G♯), as at *a* in the following Ex., (164) as that would imply the addition of the tones C♮ and E♮. Since C and E are to be *sharped*, this must be indicated by the figures, as at *b* in the same ex.:—



For the purpose of familiarizing the eye with the various positions of the triad, an exercise similar to the following is recommended. Let the pupil name the *fundamental, mode* and *position* of each accord in the following examples:—



For the sake of encouraging a clear and systematic manner of describing a chord, we give a model below:—

The first accord, at *a*, is the triad of A minor in its Fundamental position.

The second accord, at *a*, is the triad of A minor in its Third-sixth position.

The third accord, at *a*, is the triad of A minor in its Fourth-sixth position.

The first accord, at *b*, is the triad of A minor in its Fundamental position.

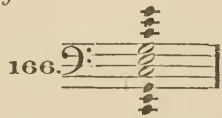
The second accord, at *b*, is the triad of A minor in its Fundamental position.

The third accord, at *b*, is the triad of A minor in its Fundamental position.

The chord is reckoned from the Bass upward; at *a*, the Bass of the three triads is A, C and E respectively, while at *b*, the Bass is each time A.

DUPLICATION OR DOUBLING AND OMISSION OF ACCORD TONES.

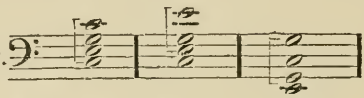
As already remarked, any or all of the members of an accord may be doubled above or below, *e. g.*



So long as the *position* remains the same, the identity of the accord is not altered by this duplication of its tones. In writing for four voices, it is most

usual to double the *fundamental*, but, wherever it seems more expedient, the *third* or *fifth* may be doubled instead, *e. g.*

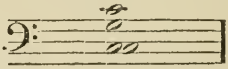
167.



OMISSION OF ACCORD TONES.

If it is desirable or necessary to *omit* any member of a triad, the *fifth* will be least missed. This is frequently done even in orchestral compositions where so many instruments are at command; sometimes in the final accord. In the compositions of former times, the *third* was often omitted; very nearly always in the final accord, on account of a rule which then prevailed, *viz:* "the *close* must be *perfect;* the *octave* and *fifth* are *perfect*, the *third* is not," *e. g.*

168.

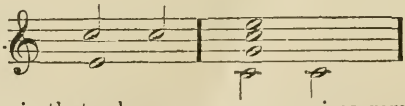


We are not satisfied with this form of the triad, at the present day, especially as a close, as the *third* is regarded fuller. The omission of the third, therefore, occurs very seldom.

VARIETIES OF VOICE MOTION.

1. *Plane Motion* is that in which one or more voices remain stationary while one or more voices move only *rhythmically, i. e.*, repetition on the same pitch, *e. g.*

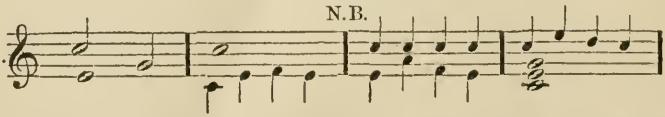
169.



2. *Oblique Motion* is that when one or more voices remain stationary and *one* other voice moves *toward* or *away* from them, spring or degree-wise (see Ex. 170).

Remark.—By *degree-wise* is to be understood from one staff-degree to the next, and by *spring-wise*, from one staff-degree to any other excepting the next.

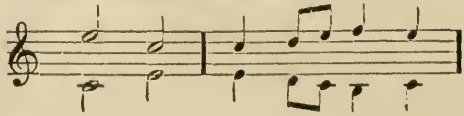
170.



The upper voice at N. B. can be regarded as stationary, in the sense that it does not move from its degree.

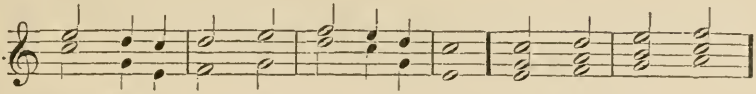
3. *Contrary Motion* is that in which *two* voices move simultaneously toward or away from each other, spring or degree-wise, *e. g.*

171.



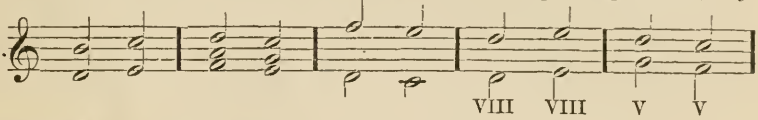
4. *Similar Motion* is that in which the voices move in the same direction simultaneously, spring or degree-wise, *e. g.*

172.



5. *Parallel Motion* arises when each of the voices move the same number of staff-degrees in the same direction simultaneously, spring or degree-wise, *e. g.*

173.

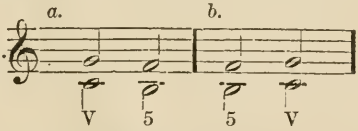


Parallel Motion is always similar, but the reverse is not always true.

CONSECUTIVE OCTAVES AND FIFTHS.

The last two examples in Parallel Motion are what is termed Consecutive, or Open, or Parallel Octaves and Fifths. *Such progressions in harmonic combinations are always to be avoided as false leading of the voices.* Parallel fifths, in which the *first* is a *major* and the *second* a *minor* fifth, are frequently found in standard compositions, as at *a* in the following example, but the reverse, as at *b*, a minor and then a major fifth, is not to be allowed.

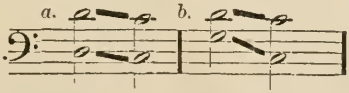
174.



COVERED OCTAVES.

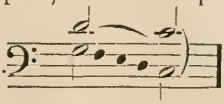
When two voices move into an octave in *similar motion*, either *open* or *covered octaves* result. An example of *open* octaves is given at *a* in the following, and one of *covered* octaves at *b*:—

175.



By filling out the space degree-wise between G and C of Ex. 175, *b*, the octave succession will clearly appear; hence the expression *covered* octave, *e. g.*

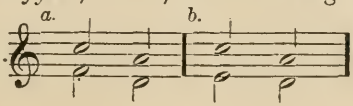
176.



COVERED FIFTHS.

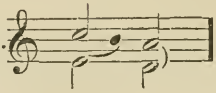
When two voices move into a fifth in *similar motion*, the result is either *open*, as at *a*, or *covered fifths*, as at *b*, in the following example:—

177.



If the space between C and A, at *b*, of the foregoing example, be degree-wise filled out, the succession of fifths will be at once apparent, thus:—

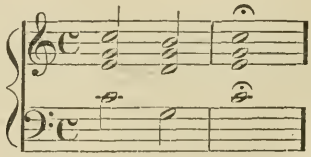
178.



Covered octaves and fifths are allowable except in certain cases, an explanation of which will appear later.

The following chord-connection contains both covered octaves and fifths correctly used; it is left to the student to discover them.

179.



It is suggested that the teacher make use of this and other examples to ascertain if the varieties of voice motion are fully understood by the pupil.

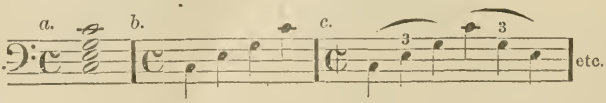
CHAPTER XIII.

BROKEN CHORDS. AUXILIARY TONES. APPOGGIATURA. PASSING-NOTES.

BROKEN CHORDS. (ARPEGGIOS).

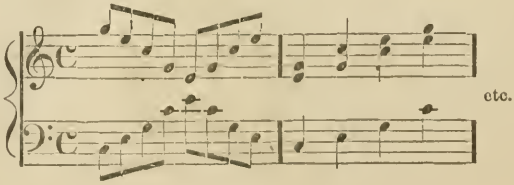
A chord, as at *a*, Ex. 180, may be *represented by one voice*, to which the tones of that chord are given successively, as at *b*, or *c*. A chord performed in this manner is said to be *broken*, or in *arpeggio* form.

180.



An accord may also be represented by two or more voices in arpeggio, either in contrary or similar motion, *e. g.*

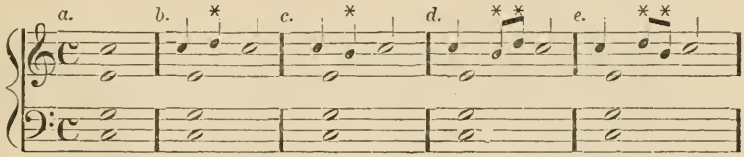
181.



AUXILIARY TONES.

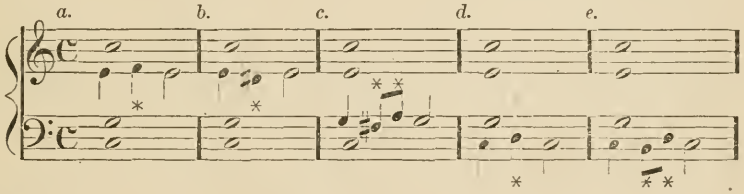
Every tone of an accord has two *auxiliary tones, viz:* its *second* above and below. We give at *a*, Ex. 182, the chord only, and at *b*, *c*, *d* and *e*, the various methods in which the auxiliary tones of a single member of the chord may be used. Notice at *d* and *e* that the auxiliaries follow each other (see asterisks ⁎).

182.



Examples of the use of auxiliary tones upon other voices of the above accord are given in the following, it being left to the pupil to complete the varieties:—

183.

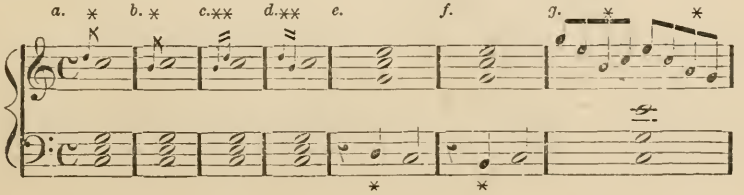


Auxiliary tones may be chromatically altered, as for instance at *b* and *c*, in example 183, but never so as to cause more than a *major second* to intervene between them and the accord-tone to which they move. It will be noticed that an *auxiliary tone* is always *prepared, i. e.*, preceded by the same accord-tone into which it immediately afterward resolves.

APPOGGIATURA.

When a so-called auxiliary tone enters *free; i. e., without* the preparatory accord-tone, it is termed an *appoggiatura.* They may be written, as at *a*, *b*, *c* or *d* of Ex. 184, in small notes, in which cases they are often called *grace-notes*, because of being executed so quickly as not to encroach on the time of the large notes, or they may occur as at *e*, *f* and *g*, or in notes of greater length. The *dissonance* of the *appoggiatura* is least sharp when it enters on an unaccented part of the measure, as at *e* and *f*. Appoggiaturas may *enter free*, but they must resolve *degree*-wise into an accord-tone.

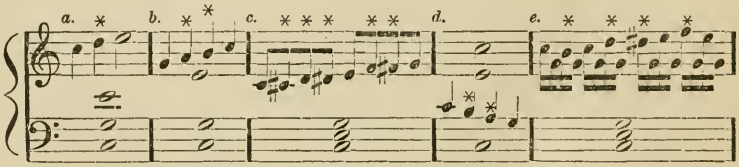
184.



PASSING NOTES.

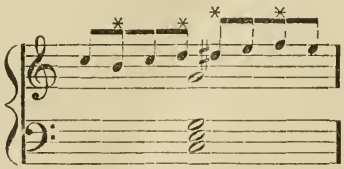
Those notes which fill out the space degree-wise between two tones of the same or different accords, are termed Passing-Notes. It should be well remembered that *passing-notes* as well as *dissonances* in general (*appoggiaturas* excepted), *can only enter degree-wise after an accord-tone, progress degree-wise, and resolve degree-wise into an accord-tone;* they can never enter, progress or resolve spring-wise, *e. g.*

185.



At *a*, Ex. 185, the tones C and E, in the upper voice, are accord-tones, therefore, in connecting them melodically (degree-wise), the tone used to fill out the intervening space (D) is a passing-note. At *b*, the accord-tones in the Soprano are G and C; the A and B, used to fill out the between-lying degrees, are therefore passing-notes. At *e*, however, the above-given rule *seems* to be disregarded, for the passing notes B, D, D♯ and F, each *spring* to G. The passage is to be explained thus: the upper voice undertakes to represent two parts; the repetition of the tone G is to be regarded as one voice, and the melodic succession, C—B—C—D—D♯—E—F—E, as the other voice, (see following example):—

186.



The passing notes, as now explained, do not transgress their rule. Similar passages occur very often, and, if correct, they are always to be explained under the head of Broken Chords (see page 76), or *appoggiaturas.*

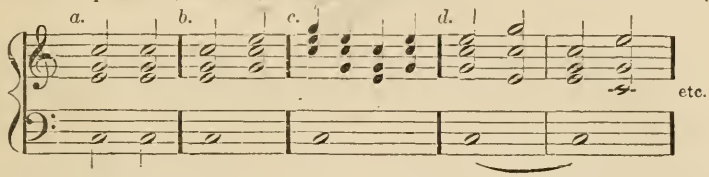
CHAPTER XIV.

HARMONIC CONNECTION. TRIAD-SUCCESSION.

We come now to the consideration of harmonic connection, or practical chord-successions; *i. e.*, the manner in which the harmonies, thus far learned, may succeed each other. Having learned, as yet, only the forms and positions of the four principal *triads*, our studies and exercises will be confined exclusively to *triad*-successions, and, further, to those triad-successions possible to the

Normal major and minor modes. This will call into action only major, minor and diminished triads, leaving the augmented triad, which is an artificial chord-formation, to be specially treated of at another place.

We remark, to begin with, that a triad, instead of being repeated over the same Bass in the same position, as at *a*, Ex. 187, may change the arrangement of its voices at pleasure, as at *b*, *c* and *d*, for ex.:—

187. 

If, however, the second harmony is to be different, it must appear in such a position or arrangement of its voices as to place it in connection with the first.

REMARK.—In a succession of two or more chords, each chord becomes a *first* to the one following it.

RULE FOR CHORD-CONNECTION.

Tones which are COMMON *to both harmonies must be retained in the same voices. Tones* NOT COMMON *to both harmonies must progress as melodically as possible to their places in the new accord.*

We will begin with one of the simplest of all chord-successions, *viz:* that in which the

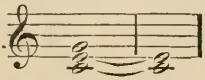
FUNDAMENTAL FALLS A THIRD.

In such successions we shall always find two tones common to both harmonies.

For example, in the key of C major, if we cause the *fundamental* of the Tonic-triad, C, E, G, *viz:* C, to fall a *third* and a new triad to be formed, the second accord will consist of the tones A, C, E. If these two triads were to succeed each other in their Fundamental positions, thus:—

188.

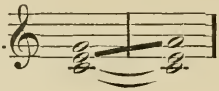
no connection in the accords would appear, as each voice makes a progression. On the contrary, if we first see what tones are *common to both triads*, and then retain those tones in the same voices, according to our rule, our chord-succession will first appear as follows:—

189. 

The tones C and E being common to both harmonies, we first write them down, as in the above example. Turning to our rule again, we find that the tone or tones *not* common to both harmonies, are to progress as melodically as possible to their places in the new accord. In order to fill out the triad of A

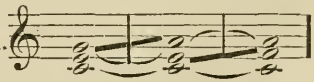
minor (A, C, E), it will be necessary for the tone G, in the first triad above, to progress to the tone yet lacking (A) in the second triad. No more melodic progression is necessary than for the G to move a step upward to A, thus:—

190.



Again, allowing the *fundamental* of the A minor triad to fall a third, we shall have the *fundamental* of the major triad, F, A, C. This triad has two tones (C and A) common to the triad of A minor, therefore, in connecting these harmonies, those tones must remain in the same voices, while the E progresses melodically to F, thus:—

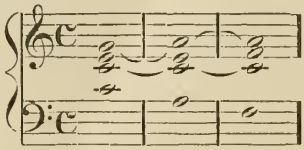
191.



The connection or succession of the triads of C major, A minor and F major is here correctly presented, but the *position* in which this connection necessarily causes the triads to appear, gives occasion for further remark. The C major triad is employed in its fundamental position, the most satisfactory and independent of all; the A minor triad appears in its Third-Sixth position, which is independent in a second degree only, and the F major-triad in its Fourth-Sixth position, possessing no independence whatever.

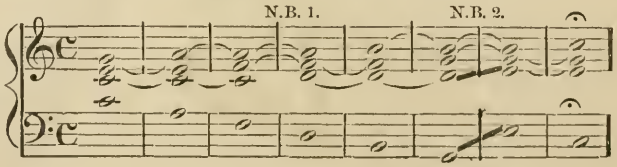
Here we see the necessity of a *basis*, or in musical terms, a *Bass*. The firmest basis which can be given is naturally the *fundamental*, and, as will be seen, this member added to the above chord-succession, will place each chord in its most satisfying position, thus:—

192.



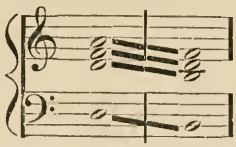
Continuing to cause the *fundamental* to fall a third until the Tonic is reached, always remaining in the stem-tones of the mode of C major, we shall have successively, in addition to the above, the triads of D minor, B diminished, G major, E minor and C major. We present below, the correct method of connecting this series of triads:—

193.



At N. B. 1, in the above example, beginners in chord connection often lead the voices of the D minor triad as follows:—

194.



The example then contains *consecutive octaves* between the Bass and Tenor, and *consecutive fifths* beween the Bass and Soprano, and Tenor and Soprano, all of which are signs of bad voice-leading, as we shall see in the present case. If the rules for chord-connection are observed, all these faults will at once disappear. The D and F will be retained as inner voices, while the A progresses melodically to B, (see N. B. 1, Ex. 193).

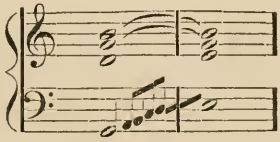
The diminished triad thus formed (B, D, F), which always occurs on the leading-tone, appears here in its Fundamental position, and sounds raw and disagreeable; we are to learn a better use of this triad in due time. Our sequence or regular fall of a third, in the Bass, brings the passage upon this tone, therefore, to avoid disturbing the systematic progression of the exercise, this unpleasant, though correct, succession is to be tolerated for the present.

At N.B. 2, of Ex. 193, the *fundamental* rises a *sixth*, instead of falling a third, though virtually the same thing, in order to avoid going below the ordinary range of the human voice. The rules for chord-connection are just the same as before, but as the progression of the Bass and Tenor is in similar motion to the same letter (E), *covered octaves* result. Here will follow the

RULE FOR COVERED OCTAVES AND FIFTHS.

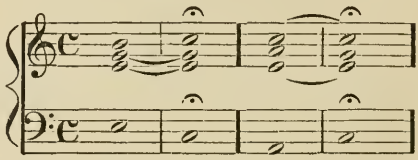
In properly connected harmonies, covered octaves and fifths are allowable. The best masters bear witness to this principle. In the case above alluded to, the two harmonies are connected by two tones (G and B), therefore there can be no objection to the covered octave between the Bass and Tenor. The only varieties of voice-motion, presented in a chord-succession where the fundamental continually falls a third, are *oblique* and *contrary*, therefore, if the rules are followed, no false voice-leadings can arise. Such faults arise only where similar or parallel motion is presented. If the direction of the Bass is reversed, *i. e.*, if it rises a *sixth*, as in the above example (G to E), *covered octaves* are sure to result. If, however, the space between the two Bass notes referred to, were to be degree-wise filled out (see Ex. 195), the result would be *consecutive octaves*, a fault which no number of connecting tones would counterbalance:—

195.



In the last measure but one, of Ex. 193, a triad (E minor) occurs which is related in the third to the following Tonic-triad. Neither this succession, nor that formed by the Tonic-triad and the other triad (A minor) related in the third with the Tonic-triad, can ever form a satisfactory close, *e. g.*

196.

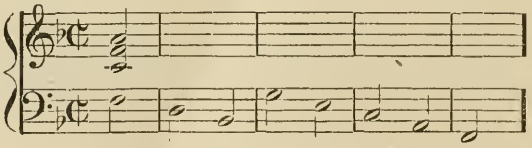


The reason may be found in the fact that the two chords are so closely connected (see connecting tones), that the progression has not sufficient *falling inflection* to indicate a conclusion or *period.* The subject of *harmonic cadences,* however, will be specially treated further on; the point before us in the present exercises is *chord-connection*, regardless of the *close*, allusion to that subject being made here simply to prevent misapprehension.

EXERCISES IN CHORD-CONNECTION.

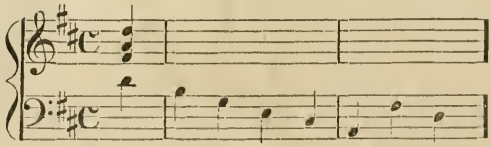
The pupil should first fill out the remaining voices in the following examples, in which the *fundamental* falls a third each time, keeping in mind the foregoing rules and observations. It will be noticed that the arrangement of the upper voices differs in Examples 193, 197 and 198. In Ex. 193 the *fifth* of the triad is given to the Soprano; in Ex. 197 the *third*, and in Ex. 198 the *fundamental.* This varies the study and the effect, and each should receive equal attention in the exercises to follow these in other keys.

197.



In each additional chord, first write down the connecting tones, and then, the remaining voice or voices have only to progress to the nearest tones or places in the new accord which remain unoccupied. It will be noticed that when the Bass actually falls a *third*, the other moving voice or voices progress to their places in contrary motion to that Bass.

198.

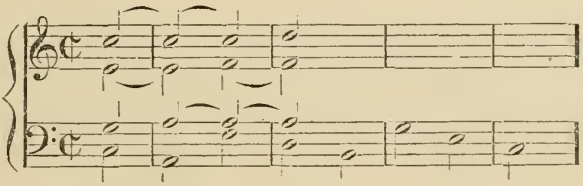


The use of the tie is optional, as the connection is just the same whether the tone be bound or repeated. The purpose of its use thus far, has been simply to indicate the connecting tones more distinctly.

Having completed the above examples, the pupil should now transpose the same Bass to various other keys,* and work out the upper voices in the manner employed here, remembering to alternate the arrangement of those voices as hinted at above.

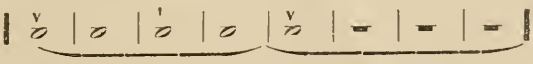
The change in the direction of the Bass, causing it to rise a *sixth*, may be made at any point where it will succeed in keeping that voice within the ordinary compass. Following the above exercises, in which the upper voices are in close position, chord-successions should be practiced in which these voices are in dispersed position. The very same rules and suggestions are to be observed as before. We begin such an exercise in Ex. 199, leaving the pupil to complete it and practice in other keys also, and with different arrangement of the voices.

199.



It is certainly not musical to write or play an exercise in C major and its successor in D♭ major. Choose rather, F or G major, A or E minor or F or C minor as the successor to C major. Having chosen F major, for example, the next exercise after that, may be written or played in B♭ or C major, D, A, F or B♭ minor. The *number of measures* in an exercise, for rhythm's sake, should in general, be devisible by 2, as the balance is better maintained, although there is no arbitrary rule concerning it. The principle of *accent* applies as well to *measures*, as to *metrical members* of a measure. Every alternate metrical member receives an accent, and, as a measure may be regarded as one metrical member of the whole composition, it follows that every alternate measure receives additional stress. The fifth, in an exercise of five measures, can be taken as the beginning of a new section, for ex.:—

200.



It is therefore not objectionable to end upon the fifth measure.

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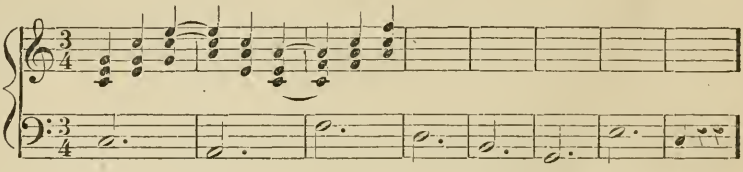
* It is proper to suggest that in these, and in all exercises to come, both in writing and in playing, the *succession of keys* should be duly considered. Let the exercises follow each other in keys which are related, (see related modes, page 52).

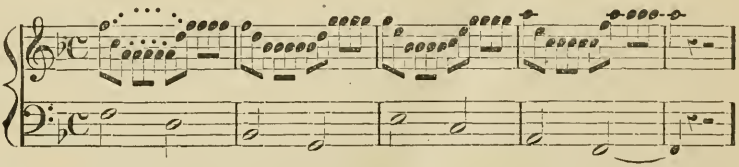
Example 201 shows that so long as the *same fundamental* continues, the remaining voices can spring *ad libitum*, but so soon as the *fundamental* changes, the rules for chord-connection must take effect again. The pupil should complete the exercise in the manner indicated.

201.



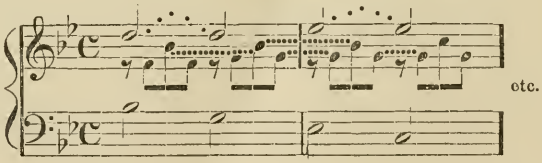
As previously remarked, page 76, a chord may be represented by one voice, to which the tones of that chord are given successively. A chord-succession may also be represented in the same manner, always bearing in mind the rules for chord-connection, the same as though the tones appeared simultaneously, instead of one after the other. In Ex. 202, this connection is traced by the dotted lines:—

202.



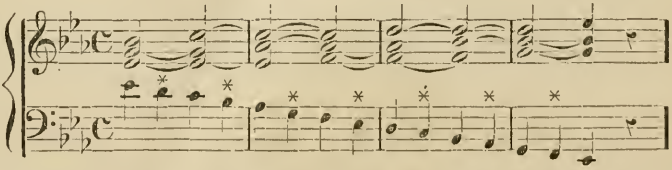
In Ex. 203, another form of chord-connection is presented, the Tenor and Alto being represented by one voice. The same rules prevail.

203.



Instead of the Bass always making the spring of a *third*, a *passing*-note may be introduced between each *fundamental* (see asterisks in Ex. 204), thus making that voice to move more melodiously. No mistakes in the voice-leading are possible, because only oblique and contrary motion appear, *e. g.*

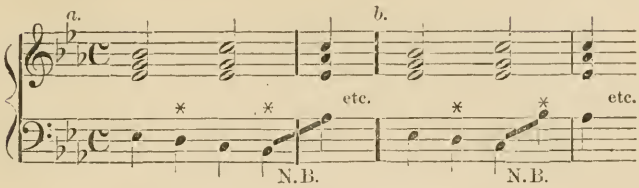
204.



If it is desired, in such a Bass as the above, to take the octave above, in order to avoid going too low, care must be taken to avoid a very common mis-

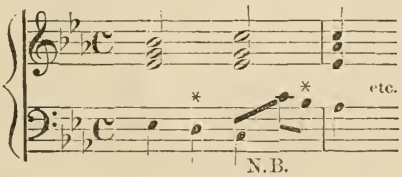
take, *viz:* springing from a *passing-note* to an *accord-tone* or *vice versa, e g.*

205.



The above example, at *a*, shows a spring from a *passing-note* to an *accord-tone* (B♭ to A♭), the fault being that the passing-note is not *degree-wise resolved*, according to the rule, page 78. At *b*, the reverse occurs; the C is an *accord-tone* and the B♭ succeeding it, to which the Bass springs, is a *passing-note*. The *entrance* of the passing-note is therefore faulty. It must be remarked, however, that while the entrance of the B♭ alluded to, *as a passing-note*, is faulty, yet, regarded *as an appoggiatura*, it is correct, because such notes may enter *free*, but must be resolved *degree-wise*, all of which takes place here. The example at *b* might therefore be tolerated, (that at *a* must be rejected), still there is a better way of treating such a passage, *viz:* by springing from an accord-tone to its octave, thus:—

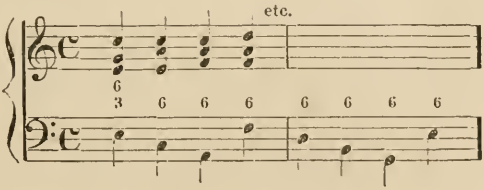
206.



TRIAD-SUCCESSIONS IN THIRD-SIXTH POSITIONS.

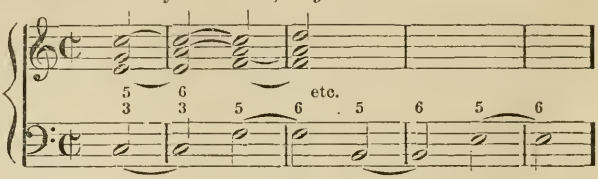
Heretofore the Bass of each harmony in our chord-successions, has been the *fundamental*. As the chord of the Third and Sixth is in a measure independent, it may also be used successively. The Bass will now be the *third* of the *fundamental*, and, as before, fall a third or rise a sixth at each progression. The following example should be completed, and like successions formed in other keys:—

207.



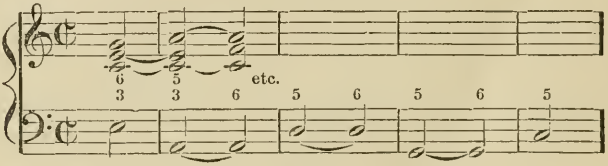
The Fundamental position of a triad, and the Third-Sixth position of the relative-third triad below may alternate, *e. g.*

208.



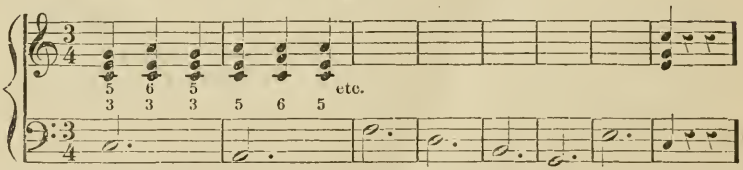
It is of course optional which shall appear first, *e. g.*

209.



Still another variation is shown in Ex. 210.

210.

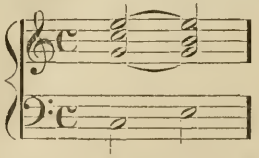


The foregoing having been duly understood and practiced, we will now pass on to chord-successions in which the

FUNDAMENTAL RISES A THIRD.

Again, using the key of C major, and causing the *fundamental* of the Tonic-triad C, E, G to *rise* a third, the minor triad E, G, B is met with, which has two tones (E and G) common to the Tonic-triad. In connecting these triads properly, those two tones will be retained in the same voices, *e. g.*

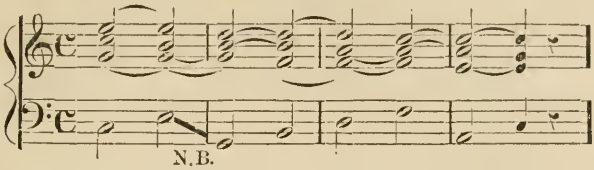
211.



The E remains as upper-voice, the G as Tenor, while the C moves to B, the tone nearest to it in the E minor triad. So long as the *fundamental* actually rises a third, only contrary and oblique motion appear, therefore no false voice-leadings are possible, even though passing-notes are introduced. If the direction of the Bass be reversed, falling a sixth (the inversion of the third), as at N.B. in the following example, covered fifths arise, and if passing-notes were used to fill out the space, *parallel* fifths would appear. So long as the chords are well connected, as here, *covered* fifths are allowable (see rule, page 81). We present below, the completed example begun above,

the *fundamental* rising a third or falling a sixth at each progression:—

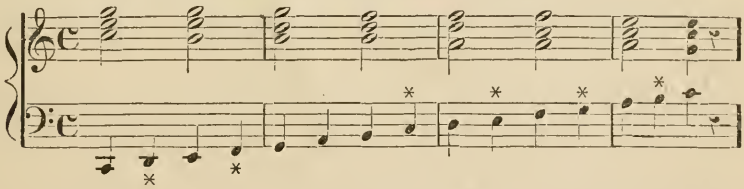
212.



It will scarcely be necessary to further explain the connection of the harmonies in the foregoing example, after the ample treatment of triad-successions in which the *fundamental falls* a third. The same rules and observations apply here *in toto*. Each harmonic succession is connected by two tones which are always to be retained in the same voices. The pupil should as thoroughly develope this manner of triad-succession as the first, *viz*:—

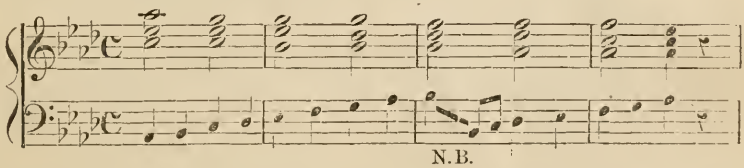
1. Work out Ex. 212, in which the fundamental rises a third, in different keys, bearing in mind to give the Soprano of the commencing accord, sometimes the *third*, and sometimes the *fifth* as well as the *fundamental* of the triad, as shown in Examples 193, 197 and 198.
2. In open position, as shown in Ex. 199, or in any other open position.
3. Changing the position of the upper voices over the same Bass, as in Ex. 201.
4. Representing the upper voices in broken chords, as in Exs. 202 and 203.
5. Introducing passing-notes, as in the following examples:—

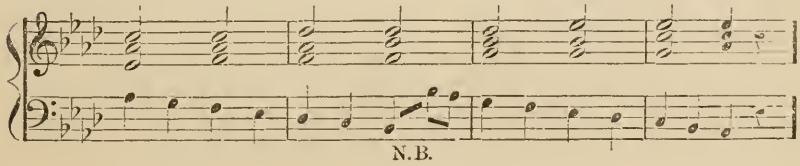
213.



Ex. 214 presents a combination of Examples 204 and 213, and shows also, at N. B., a correct method of gaining a lower or higher position of the Bass, (see remarks on this point, page 85).

214.





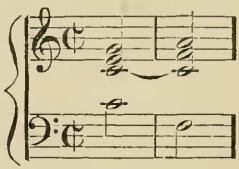
6. Using the triads in the Third-Sixth position, as in Ex. 207.

7. Alternation of the Fundamental position of a triad and the Third-Sixth position of its relative-third triad below, as in Exs. 208, 209 and 210.

TRIAD SUCCESSION IN WHICH THE FUNDAMENTAL FALLS A FIFTH.

In this manner of chord-succession, the harmonies are connected by one tone only. Beginning with the Tonic-triad of the key of C major, and allowing the *fundamental* to fall a fifth, the second chord will be the triad of F major, *e. g.*

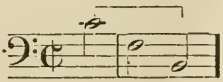
215.



The C, in the Tenor, connects the two harmonies, while the Soprano and Alto progress, in contrary motion to the Bass, to the nearest tones necessary to complete the F major triad.

The second fall of the *fundamental* a fifth would be from F to B, thus:—

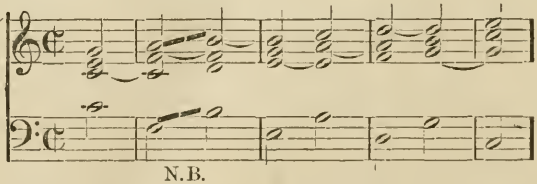
216.



The first attempt to sing the above Bass would show it to be not melodical, owing to the relation between C and B, a minor ninth.

The progression of the Bass in this variety of triad-succession will be much improved if each alternate *fundamental rise a fourth*, the inversion of a *fifth*. We now present a completed example, and, as will be noticed, the chords are connected by a single tone.

217.

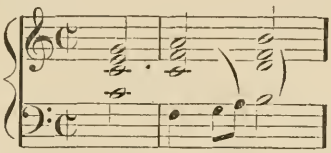


N.B.

The Bass will now be found singable notwithstanding the *tri-tone* between F and B (N. B.), but the reversion of its direction, rising instead of falling, yields similar motion with the other voices, which, in polyphonic harmonies, very often produces open or covered fifths or octaves. In this case, at N. B., the Bass and Soprano exhibit a covered octave, but, as the chords are connected by one tone (F), the succession is admissible. The worst feature of the example at N. B., is the progression from the F major triad directly into the diminished

triad upon the *leading-tone* (B). It sounds very crude in this position, and is to be tolerated only in behalf of the present object, *viz: practice* in *chord-connection.* The Bass proceeds in regular sequence, and of course the leading-tone occurs in its turn as *fundamental.* While the *covered* octave at N. B. is permitted even in the outer voices, as it occurs here, it would not be allowable to fill out the space between F and B, as in the following example, for then, *open* octaves would result.

218.

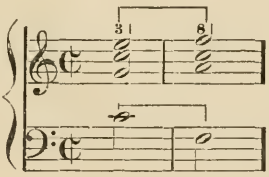


It will be seen that covered octaves result in Ex. 217 at each rise of the *fundamental,* between the Bass and one of the inner voices, but they are less noticeable than the one pointed out between the outer voices, therefore less objectionable, if any discrimination were to be made. The covered octaves, however, in this example may be wholly avoided, if desired, by means of a somewhat freer leading of the voices, *viz:* by the use of sequences applied to all the voices.

SEQUENCE.

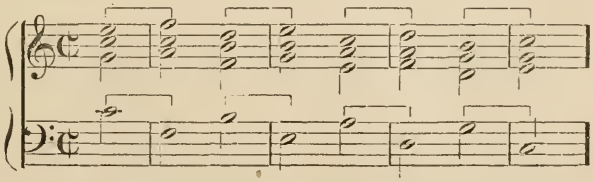
A *sequence* is the similar repetition of a melodic or harmonic figure. For example, if we take the following harmonic figure, in which the *fundamental* falls a fifth:—

219.



and form similar repetitions, using the same Bass as in Ex. 217, the result will be a sequence, and the covered octaves will disappear, *e. g.*

220.



In our model, Ex. 219, the Soprano of the first accord has the *third* of the *fundamental,* the Alto the *octave,* and the Tenor the *fifth.*

The first accord of each repetition in the above sequence is arranged in the same manner. The second accord in the figure is connected to the first in the

usual manner. The result of this freer leading of the voices is that contrary motion is secured, thereby rendering the occurrence of covered or open octaves an impossibility.

DEPRESSION TO RELATIVE DEGREES BY MEANS OF MAJOR TRIADS.

If we cause the *fundamental* of a major triad to fall a *major fifth*, or rise a *minor fourth* at each progression, and a major triad be formed upon that new *fundamental*, we come each time upon the Tonic-triad of a new key, which we will call, for want of a better term, one *relative degree lower*.

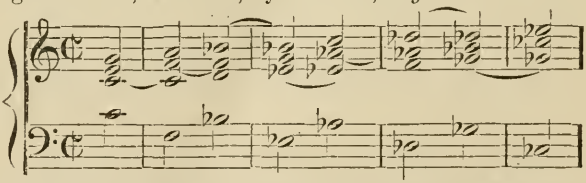
RELATIVE DEGREE.

By this term we mean to express that key which has one more flat or sharp, or one less flat or sharp in its signature than the key to which we regard it as related. Two relative degrees lower would imply that the related key had two additional flats, or two sharps less in its signature; two relative degrees higher would imply the reverse, *viz:* two flats less or two additional sharps, etc.

Thus, we call the key of F major one relative degree below the key of C major, and the key of B♭ major, two relative degrees below the key of C major. Just so, the key of G major is one relative degree above C major, and D major two relative degrees above C major, etc. By means of this depression, and further on, by elevation, to relative degrees we are enabled to form chord-successions which shall touch all the different keys, an achievement of decided value to the practical harmonist.

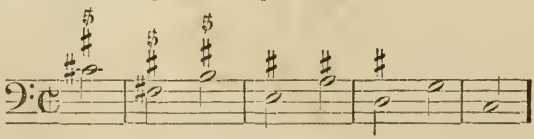
The first depression of the *fundamental* of the Tonic-triad of C major, a *major fifth*, brings us to the key of F major; the second depression of a *major fifth* gains the key of B♭ major; the third, E♭ major, and so on, each succession being connected, as before, by one tone, *e. g.*

221.



Ex. 222 presents the mode of depression to relative degrees with the use of sharps, the removal of each sharp effecting a depression of one degree. The pupil is to fill out the upper voices according to the figuring, remembering that the first accord may be placed with the *octave, third* or *fifth* of the *fundamental* as Soprano, according to option. This remark applies to all the exercises in chord-succession which the pupil may practice.

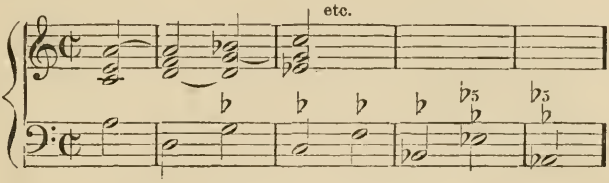
222.



DEPRESSION TO RELATIVE DEGREES BY MEANS OF MINOR TRIADS.

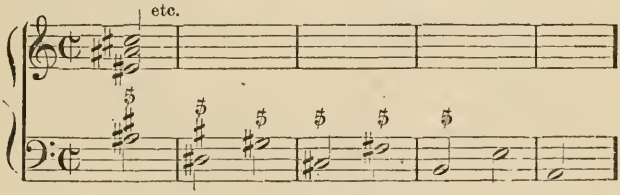
If the *fundamental* of a minor triad is depressed a *major* fifth, and another minor triad is formed upon that new *fundamental*, it will be the Tonic-triad of a minor key, one relative degree lower, *e. g.*

223.



Ex. 224 with sharps, and, as before, only minor triads are to appear.

224.

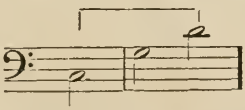


TRIAD-SUCCESSION IN WHICH THE FUNDAMENTAL RISES A FIFTH.

The very same rules and suggestions apply here as were given in the exercises where the *fundamental falls* a fifth. The first consideration is always *connection* of the harmonies. After the Bass of the exercise and the first accord have been written, seek out and write down the tone which is to connect the next harmony. The progression of the remaining voices is then simply to the nearest places in the new accord which are left unoccupied. Where the *fundamental* rises a fifth, as here, one tone, only, connects the triads, while two progress to their places in contrary motion to the Bass. If the direction of the Bass is reversed, falling a fourth, covered fifths arise, which are allowable so long as the chords are connected by even *one* tone. Care must be taken, however, with the introduction of passing-notes, where the Bass falls, lest the covered fifths become open fifths.

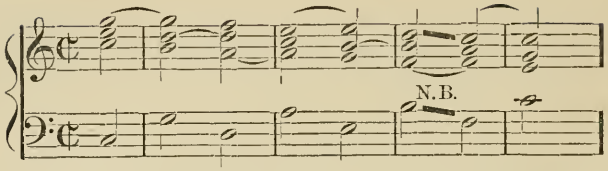
If the *fundamental* were to actually rise a fifth, twice in succession, thus:—

225.



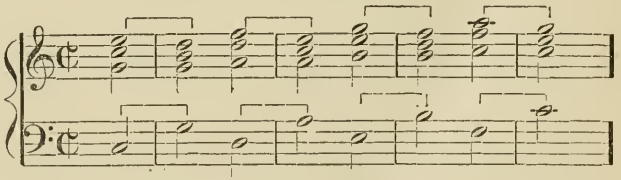
the same unmelodic Bass would result, as referred to in Ex. 216. This can be avoided by alternately causing the Bass to fall a fourth, the inversion of the fifth. Ex. 226 presents a triad-succession according to the above suggestions.

226.



At N. B., in Ex. 226, a covered fifth occurs in the outer voices, which is always more perceptible than between the inner, or one inner and one outer voice. Much must be left to the student's musical intelligence in regard to covered fifths and octaves, for in one case they may be, as here, quite intolerable, while in another they would not be noticed, owing to different surrounding voices. The sequence form of chord-succession, as in the following example, will remove the covered fifths appearing in the above.

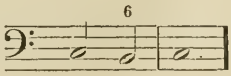
227.



As before, the above examples should be worked out in different keys.

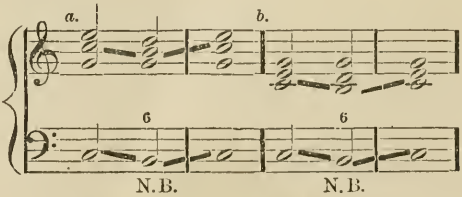
It often occurs, where the *fundamental* rises a fifth or falls a fourth, that the Bass of this second accord takes the *third* of the *fundamental*, thus:—

228.



The second accord, according to the figuring here, appears in its Third-Sixth position, and, instead of the *fundamental* (G) appearing as Bass, its third (B) is taken, which, in the key of C major, is the *leading-tone*. With the progression of the remaining voices over such a Bass, a very common fault arises, *e. g.*

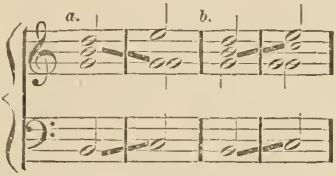
229.



The first things noticeable in these examples, are the *open octaves* between the Bass and Alto at *a*, and between the Bass and Tenor at *b*. These are of course always inadmissible, but their occurrence in this particular situation gives occasion for special comment. The B, in the Bass, which is here the *leading-tone*, is *doubled* at *a* in the Alto and at *b* in the Tenor. The *only progression*

which the *leading-tone, as such,* can make, is a half-step *upward* to the Tonic, consequently, if the Bass is such a tone, and it is clearly so at N.B. in the above examples, it follows that no *doubling* of that tone can be allowed, because *both* voices would require the *same progression* upward to the Tonic, thereby producing, unavoidably, *open octaves.* Even if this doubled tone were to be forced into another progression, as at *a*, Ex. 230, in order to avoid the parallel octaves, the *effect* would be the same as before, for the natural progression of this tone is not to be hidden; its proper resolution upward will be heard, as at *b*, Ex. 230, producing the octaves, in spite of the forced downward progression:—

230.



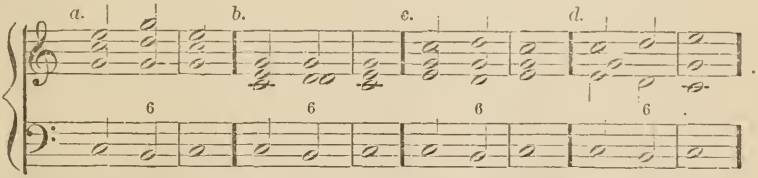
RULE.

A tone which has only one fixed progression can never be doubled. The *leading-tone* in the present case is such an one, and the *seventh* and *bound dissonances* in future cases will come under this head.

Remark.—This is not to say that the *seventh degree* of the scale, on which the leading-tone occurs, is never to be doubled, but the prohibition is to be observed when that seventh degree shows its character to be clearly that of a *leading-tone; i. e.,* if the Bass moves upward from the seventh to the Tonic, then that seventh degree is clearly the *leading-tone,* but if the Bass moves downward then the character of the seventh degree is *not* that of a leading-tone.

All of the faults shown in Ex's 229 and 230, in four-voiced harmony, may be avoided by doubling the *third* or *sixth of the Bass,* when that Bass is the *leading-tone, e. g.*

231.



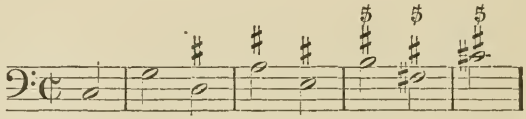
At *a*, Ex. 231, the connecting tone is G, while the Soprano and Alto progress to G and D, thus doubling the *sixth* of the Bass, and at *b*, *c* and *d*, the voices progress so that the *third* of the Bass, *viz:* D, is doubled. Examples in No. 229 are seen in their corrected form at *a* and *b* in Example 231.

ELEVATION TO RELATIVE DEGREES BY MEANS OF MAJOR TRIADS.

The process here is the same as that used in *depression* to relative degrees, except that now the *fundamental rises a major fifth,* or *falls a minor fourth,*

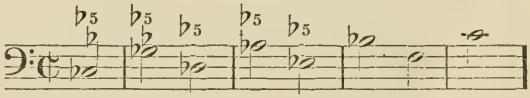
gaining one relative degree higher at each progression. Major triads only, are to succeed each other. The following exercises are to be filled out by the pupil.

232.



Ex. 233 is the same with the use of flats. The key of G♭ major has one less flat than the key of C♭ major, therefore the chord-succession is elevated one relative degree, and so on back to the key of C major.

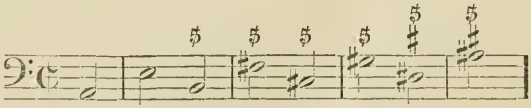
233.



ELEVATION TO RELATIVE DEGREES BY MEANS OF MINOR TRIADS.

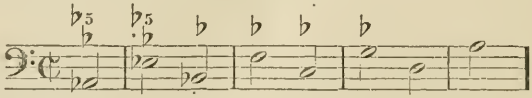
The only difference between this and the above is that only minor triads are to appear.

234.



Ex. 235 is the same with the use of flats. The key of E♭ minor has one less flat than that of A♭ minor, therefore the chord-succession is elevated one relative degree, and so on.

235.



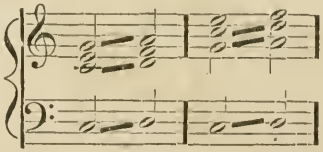
TRIAD-SUCCESSION IN WHICH THE FUNDAMENTAL RISES OR FALLS A SECOND.

Here, the harmonies have no connecting tones; hence the following *rules.*

1. *When the Bass rises, all the other voices should fall.*
2. *When the Bass falls, all the other voices should rise.*

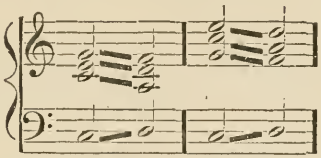
If these rules are not carefully followed, in this manner of chord-succession, the worst specimens of *parallel octaves and fifths* will constantly appear, such as the following, for example:—

236.



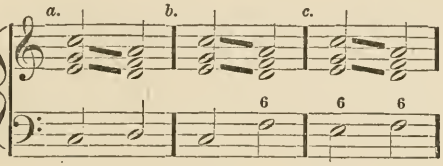
Following the rule, however, *i. e.*, causing the upper voices to progress to their places in the new accord in contrary motion to the Bass, all these faults disappear, *e. g.*

237.



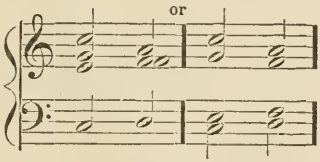
Cases often occur, where the chords are totally without connecting tones, in which *covered* fifths sound badly, and are therefore to be avoided, for ex.:—

238.



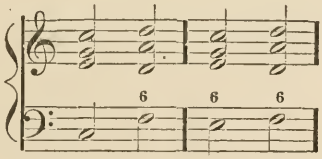
The covered fifth at *a*, Ex. 238, may be avoided by doubling the *third* of the D minor triad, as follows:—

239.



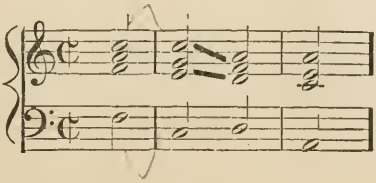
The covered fifths at *b* and *c*, of Ex. 238, may be avoided by leading the Soprano and Alto upward, thus doubling the *sixth* of the Bass, as in the following examples:—

240.



It has already been remarked that progressions, which in some cases are not to be tolerated, are in others not only tolerable but agreeable. For instance, if the example at *a*, of 238, were caused to appear in the following manner, the unpleasant effect of the covered fifth would vanish, *e. g.*

241.



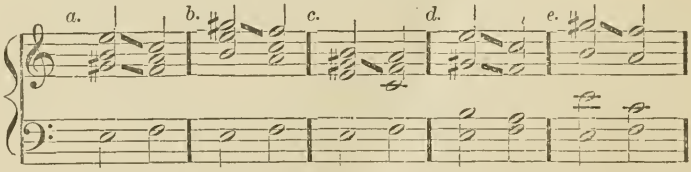
The effect of a progression, therefore, depends largely upon the harmonies with which it is placed in connection. No number of rules could cover all the cases, consequently, only the general rule is here given, *viz:* the progressing upper voices are to move in contrary motion to the Bass, when that voice rises or falls a *second.*

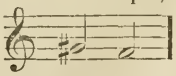
If unpleasant covered octaves or fifths arise, avoid them, either by a different leading of the voices, or by placing the voices differently, or by avoiding the progression altogether. The composer has the matter in his own hand, generally, and is not compelled to make use of a chord-succession which is not capable of acceptable manipulation.

PROGRESSION OF THE BASS FROM THE FIFTH TO THE SIXTH DEGREES IN MINOR MODES.

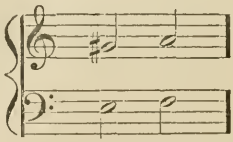
This progression, which often occurs, demands a special treatment, for the progression of the upper voices in contrary motion to the Bass does not, in this case, prevent bad voice-leading (see following examples).

242.



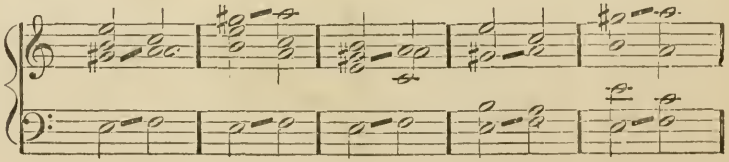
The Tenor, at *a* in the above example, makes a progression of an augmented second downward, thus:  which is to be avoided as *unmelodic,* the same as all augmented and diminished intervals in general. The same fault appears in each of the above examples, and a covered fifth occurs at *a* and *d.* This unmelodic progression, together with the covered fifths, is to be avoided by leading the *third* of the first accord to the *third* of the second, thus:—

343.



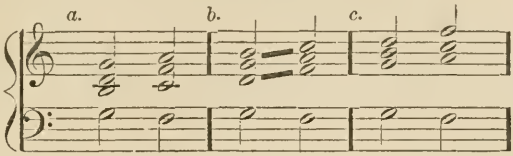
and the other voices as before. The succession will now be smooth and singable, as follows:—

244.



When the *fundamental* falls a *second*, as in the following examples, the progressing upper voices rise. It will scarcely be necessary to more than merely indicate this method of chord-succession, leaving the student to test the progressions upon other degrees of major and minor modes.

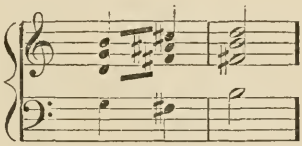
245.



The progression at *b*, Ex. 245, though showing a covered fifth, between the Soprano and Tenor, in chords not connected, is often found in the works of the best masters.

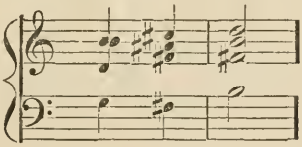
The following still more striking progression, Ex. 246, often occurs in standard works, notwithstanding the very perceptible covered fifth, and the unmelodic leading of the Alto (G to A♯):—

246.



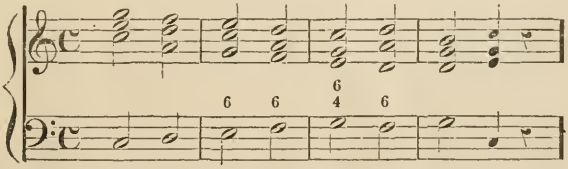
For vocal purposes, the above passage will be found much more acceptable if the voices are treated as in Ex. 247, thereby avoiding the progression of an augmented second.

247.



By way of *resume*, we present a triad-succession in which the Bass moves by *seconds*, according to the foregoing rules, *e. g.*

248.



Thus far, we have practiced triad-successions upon all the most usable intervals in the diatonic scale, *i. e.*, we have learned how to lead the upper voices when the *fundamental* has made the various progressions shown in the following table:—

FUNDAMENTAL RISES.

249. *Second.* *Third.* *Fourth.* *Fifth.* *Sixth.*

FUNDAMENTAL FALLS.

250. *Second.* *Third.* *Fourth.* *Fifth.* *Sixth.*

CHAPTER XV.

FORMATION OF CLOSES. HARMONIC CADENCES OR POINTS OF REST.

The foregoing *practicing* examples are now to be practically applied, first of all, in the construction of *closes* or *cadences*. We repeat again that a *firm, satisfactory close, demands, without exception, that the final accord shall begin and end upon an accented part of the measure.* Further, in all of the following cadences, the most satisfactory arrangement of the voices of the *final accord* is that in which the *Tonic* is given to the *Bass* and *Soprano* (see *a*, Ex. 251). That, in which the Soprano has the *third* (see *b*, Ex. 251) will be less satisfactory, less firm, and that with the *fifth*, least so of all, (see *c*, Ex. 251).

The varieties of Cadence or Harmonic points of rest are as follows:—

I. *Plagal or Half-Cadence.*

II. *Authentic Cadence.*

III. *Complete Cadence.*

I. *The Plagal or Half-Cadence is that in which the closing Tonic-triad is immediately preceded by the triad of the Sub-dominant.*

251. *a.* *b.* *c.*

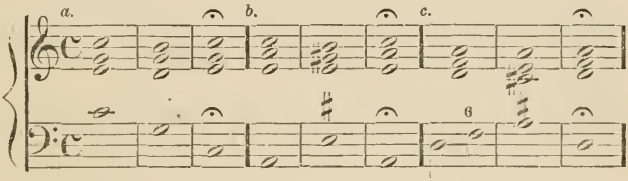
252. *d.* *e.* *f.*

We have already learned that the Sub-dominant-triad of a major mode may be minor (see page 37). An example of its use is seen at *f* in Ex. 252.

It may not be out of place to repeat here, that while the Sub-dominant-triad in a *major* mode may be major or minor at option, that triad in *minor* modes must always be *minor*.

II. *The Authentic Close is that form of cadence in which the final accord is immediately preceded by the major Dominant-triad, whether the mode be major or minor, e. g.*

253.

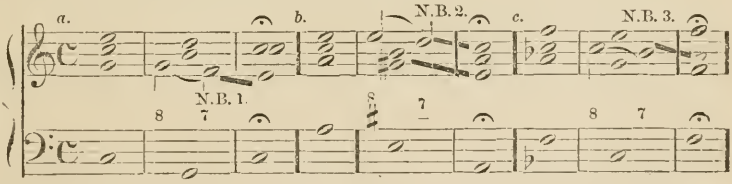


In minor modes, a chromatic sign will always be necessary, in order to indicate the *major* Dominant-triad, (see *b* and *c*, Ex. 253).

AUTHENTIC CLOSE WITH SUBSEQUENT SEVENTH.

In the *Authentic Close*, the *octave* of the *fundamental* of the Dominant-triad may be followed by the *minor seventh* of that *fundamental* (see N. B. 1, 2 and 3, Ex. 254). Inasmuch as this seventh appears *after* the balance of the chord has been attacked, we will call it a *subsequent seventh*, and, being a *dissonance*, it is resolved by *falling one degree*.

254.

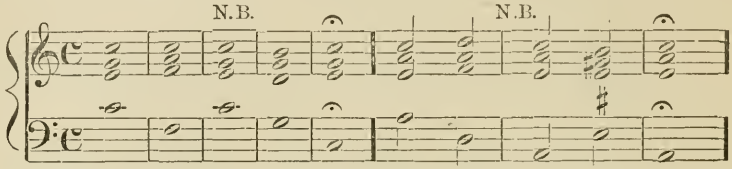


At N. B. 1, Ex. 254, the *octave* (G) of the *fundamental* is followed by the *minor seventh* (F) of that *fundamental*, which resolves itself by falling a degree to the following E. At N. B. 2, the *octave* (E) is followed by a *subsequent seventh* (D), which resolves itself a degree lower to C. In the figuring of the same example (*b*) we make use of a dash (—). It signifies simply the repetition or continuance of the corresponding preceding sign; in this case the sharp (♯). The G♯ in the same example is the *leading-tone* in the key of A minor, and, as such, should progress to the Tonic (A). The character of this tone, however, when occurring in a *middle* voice, as here, is not so distinctly felt; therefore, in order to make the following accord more complete, it is allowed to progress downward to the *fifth* of that accord. At N. B. 3, Ex. 254, a *subsequent seventh* (B♭) follows the *octave* of the *fundamental*

(C) resolving to the A, one degree lower. The E, in the chord at N. B. 3, is the *leading-tone* in that key, and, occurring in an *outer* voice, where its character is very perceptible, it must progress regularly to the Tonic (F). The G in the Tenor, at the same point, naturally falls to F, and the B♮ must resolve to A; therefore, the *final accord* appears without the *fifth.* According to present usage, this is satisfactory even in a closing accord.

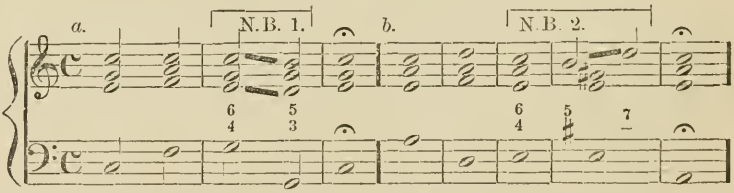
III. *The Complete Cadence is that in which are caused to appear the Subdominant and Dominant-triads, in addition to the Tonic-triad, e. g.*

255.



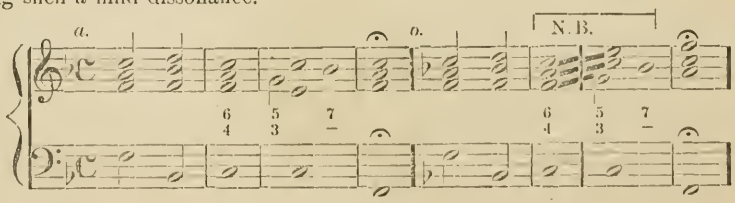
In each of the above examples, the *fundamental position* of the Tonic-triad occurs three times. The cadence will be made more varied and interesting if the *Fourth-Sixth* position of the Tonic-triad be employed at N. B. instead of the *fundamental,* (see N. B. 1 and 2 in Ex. 256).

256.



The *Fourth-Sixth accord,* occurring in this wise, *must always enter upon an accented measural-division,* and further, it must be followed by a *major* triad, whose *fundamental* is the same tone as the *Bass* of this Fourth-Sixth accord (see N. B. 1, Ex. 256). This is virtually a resolution, (the *fourth* progresses to the *third,* and the *sixth* to the *fifth,* see figuring) for the chord of the Fourth and Sixth is so dependent, so unstable in itself, that it nearly approaches the character of a *dissonant* accord, which latter always requires a resolution. In the *complete,* as well as in the *authentic cadence,* not only the *octave,* in the Dominant-triad, but also the *fifth,* may be followed by a subsequent-seventh, (see *b,* Ex. 256 and *a* and *b,* Ex 257). The seventh enters *free* here; *i. e., spring-wise;* this can always occur with the minor seventh, it being such a mild dissonance.

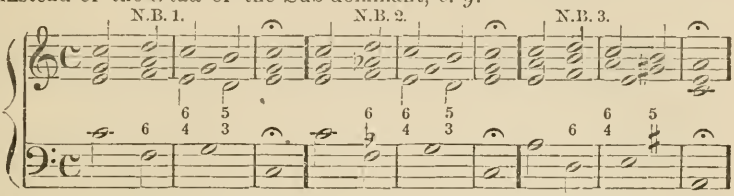
257.



The *final accord* at *a*, Ex. 257, is not entirely satisfactory, as a close, on account of the Soprano having the *fifth* (C). This occurs because the connecting tones and natural flow of the voices were strictly observed in the preceding chords. On account of this unsatisfactory final accord, the voices of the Fourth-Sixth accord may be led upward as at N. B., Example *b*, thereby securing a chord which leads to a firm close upon the Tonic.

In the complete close, a Third-Sixth accord can occur upon the Sub-dominant, instead of the *triad* of the Sub-dominant, *e. g.*

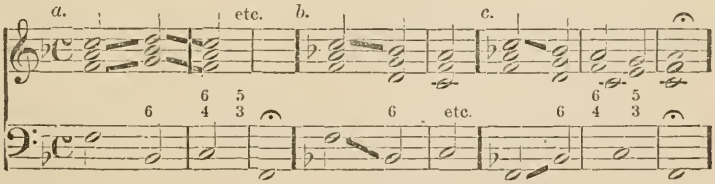
258.



At N. B. 1, Ex. 258, the Third-Sixth position of the D minor triad occurs in place of the usual F major or Sub-dominant-triad. At N. B. 2, it is the same position of the diminished triad found on the second degree of the scale in the milder major mode of C (see this triad, page 37). At N. B. 3, it is the same position of the diminished triad found on the second degree in the minor scale. It is this position (Third-Sixth) which we alluded to on page 81, in which the diminished triad sounds most agreeable; the Fundamental and Fourth-Sixth positions are crude and disagreeable.

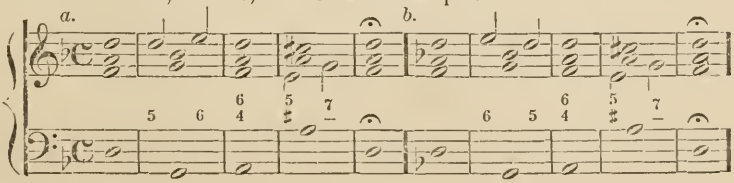
When a Third-Sixth accord follows the Tonic-triad, instead of the Sub-dominant-triad, care must be taken to avoid faulty voice-leading, as at *a*, Ex. 259. The progression is somewhat improved at *b* in the same example, but as the two chords have no connecting tone, the covered octave is too perceptible. Leading the Bass in contrary motion, the succession will be correct in every particular, as at *c*.

259.



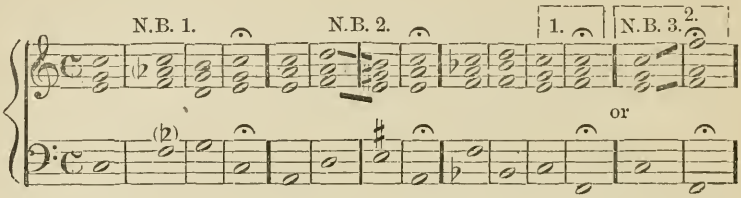
A Third-Sixth accord may follow the triad of the Sub-dominant upon the same Bass in a complete close, as at *a*, Ex. 260, or this accord may precede the Sub-dominant-triad, as at *b*, in the same example:—

260.



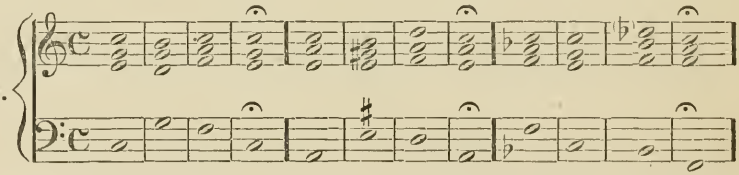
Finally, in the complete close, the Sub-dominant and Dominant-triads may appear without an intermediate accord. It makes no difference which precedes. There being no connecting tones, care is necessary in order to avoid parallel fifths and octaves, and objectionable covered fifths, *e. g.*

261.



At N. B. 1, Ex. 261, the major or minor Sub-dominant-triad may be used optionally; at N. B. 2, the covered fifth is not bad, and the F, in the Tenor, could not well progress to G♯, in order to avoid the covered fifth, on account of that being an unmelodic step (F—G♯, an augmented second); at N. B. 3, the last two chords of the preceding example are given in a different form. The covered octave cannot be pronounced bad, as it occurs between an *inner* and *outer* voice, and also the Bass, a prominent voice, progresses in contrary motion to the other voices. In the above examples, the Sub-dominant-triad precedes the triad of the Dominant; in Ex. 262 the position of these triads is reversed:—

262.



The various kinds of cadence set forth in the foregoing pages should be written and played in different keys until their structure is thoroughly understood.

CHAPTER XVI.

MODULATION.

By the term Modulation, is to be understood, a harmonic progression, which, starting in any certain key, digresses from that key, approaches a new key and therein establishes itself by means of a cadence. For the present examples, the following rule is to be strictly observed:—

In natural, i. e., classical, modulations, no accord can appear which is not common to the same mode as its immediate preceding accord. For example; if the triad of C major appears, then any triad *common*, *i. e.*, belonging,

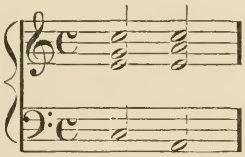
to the mode of C major, may follow that C major triad. Thus, we could take our choice of the following, *viz:* the A and E minor triads, G and F major, also F minor (the minor Sub-dominant-triad), D minor and B diminished, the latter in its Third-Sixth position only. The two triads last mentioned, which are related to the Tonic-triad of C major in a second degree only, should follow that accord very rarely.

The triads of C♯ major and minor, D♭ major and minor, D major, D♯ major and minor, E♭ major and minor, E major, F♯ major and minor, G♭ major and minor, G minor, G♯ major and minor, A♭ major and minor, A major, A♯ major and minor, B♭ major and minor, and B major and minor, could *not* follow the triad of C major, because none of these are common to the mode of C major. Each of them have one or more tones not found in this mode.

MAJOR TO PARALLEL MINOR MODES.

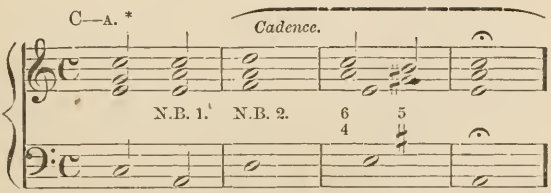
For the present, we shall confine ourselves to modulations according to the above rule, deferring until a future chapter the discussion of more abrupt progressions, and further, the modulations in the present chapter will be from a certain Tonic-triad (C major) to other keys (A and E minor, F and G major and D minor) whose Tonic-triads are common to the same mode (C major) First, one of the simplest modulations is that from a major to its parallel minor mode, for example, from C major to A minor. The Tonic-triads of these two modes are so closely related that they may follow each other, *e. g.*

263.



Having reached the *new Tonic-triad* (A minor), the next point is to *establish* the new key by means of a cadence. Adding the complete close, the most satisfactory of all, to the foregoing example (Ex. 263), the modulation from C major to A minor will be complete, *e. g.*

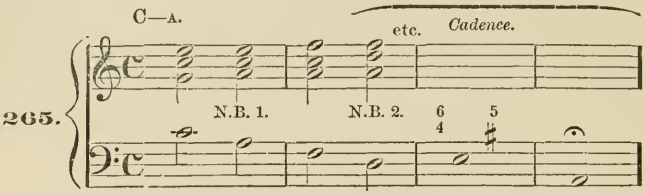
264.



* NOTE.—The large capital indicates the major, and the small capital, the minor triad Thus, the letters here (C—A) imply a modulation from C major to A minor.

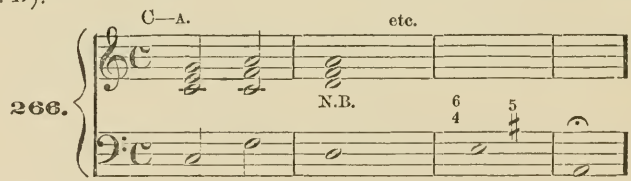
At N B. 1, Ex. 264, the *new Tonic-triad* first appears, followed, at N. B 2, by the *Sub dominant-triad of the new key* and the remainder of the *complete close in that key*, thus firmly establishing the key of A minor.

The above modulation may be made more interesting by introducing, between the second and third accords, the relative-third triad below A, *viz:* F major. The first four harmonies will then be connected by two tones each, as the *fundamental* falls a third at each progression, *e. g.*

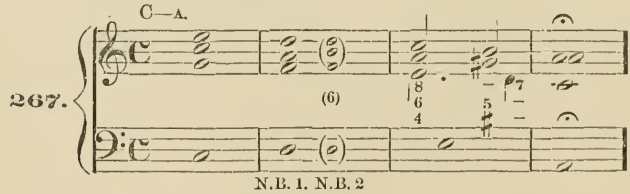


As before, the *new Tonic-triad* appears at N. B. 1, Ex. 265, and the *new Sub-dominant-triad* at N. B. 2, with the F major triad inserted between them. The incompleted upper voices should be filled out by the pupil.

A third form, Ex. 266, shows that it is not always necessary to reach the *new Tonic-triad* previous to the appearance of the *new Sub-dominant-triad*, (see N. B).



A fourth form of this modulation (C—A) is seen in Ex. 267:—



As the new Sub-dominant-triad (D minor) is common to the mode of C major, that triad can follow the C major triad immediately, as at N. B. 1, Ex. 267, or, as we have already learned, a Third-Sixth accord can occur upon the same Bass (D) instead of the Sub-dominant-triad (see parenthesis, N. B. 2). Care is always necessary in order to avoid faulty voice-leading in chords not connected, like the above. In the measure next to the last, a subsequent seventh is made use of.

From the foregoing we are able to establish the two rules or methods of procedure, following:—

1. Starting with any chosen key, the modulation is to proceed or digress from that key and approach the new key by means of *connected accords* (*i. e.*, common to the same mode). Having reached the *new Tonic-triad*, cause *its* Sub-dominant-triad to follow. The Bass of this triad is then to *rise one whole step*, and upon this new tone a Fourth-Sixth accord is to appear. This is the *new Tonic-triad* in its Fourth-Sixth position, therefore it is *major* or *minor* according to whichever that triad is to be. The Fourth-Sixth accord is then to be followed, be it major or minor, by a *major*-triad whose *fundamental* is the same tone as the Bass of that Fourth-Sixth accord. This *major-triad* is the new Dominant-triad in its Fundamental position, and leads directly to the same position of the Tonic-triad of the new key.

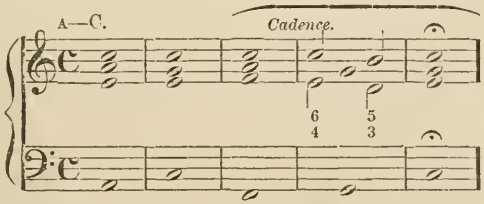
2. The *new Sub-dominant-triad* may be sometimes gained (see Ex. 267) by these natural means (connected accords) before the *new Tonic-triad* shows itself. The process following the attainment of the new Sub-dominant-triad is as before, "The Bass rises a whole *step*," etc. (see above). The *new Tonic-triad*, in these cases, appears in its Fundamental position only in the final accord. *The rhythm of the modulation must be so arranged that the Fourth-Sixth accord shall invariably enter upon an accented part of the measure* (see this chord in the above examples.)

Modulations should be now attempted from various major to their parallel minor modes, for instance from G—E, E—C♯, D♭—B♭ etc, following the method above rehearsed and the models set forth in Examples 264—7. It will also be found excellent practice to *name* the different triads, with their positions, necessary to effect any chosen modulation.

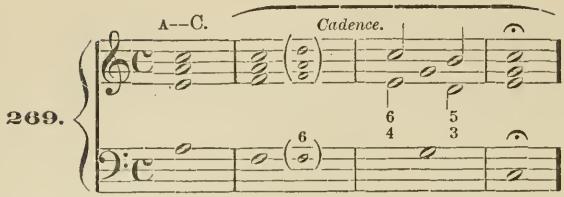
MINOR TO PARALLEL MAJOR MODES.

Having considered modulations from a major to its parallel minor mode, its reverse will very naturally follow, *viz:* from a minor to its parallel major, for example, from A minor to C major. Being closely related, the two Tonic-triads may follow each other, succeeded by the complete cadence to C major, *e. g.*

268.

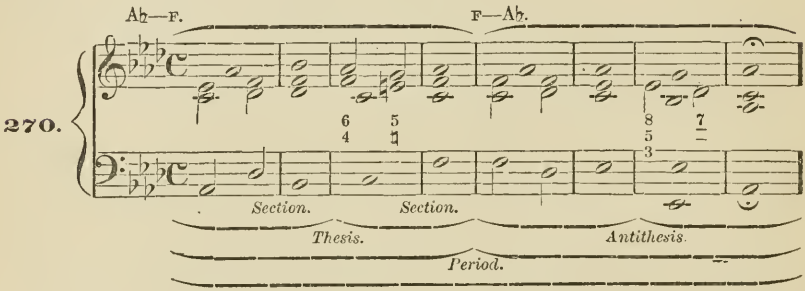


In the present modulation, the new Sub-dominant-triad may follow the A minor triad, or a Third-Sixth accord may appear upon the same Bass, as in the parenthesis. Ex. 269.



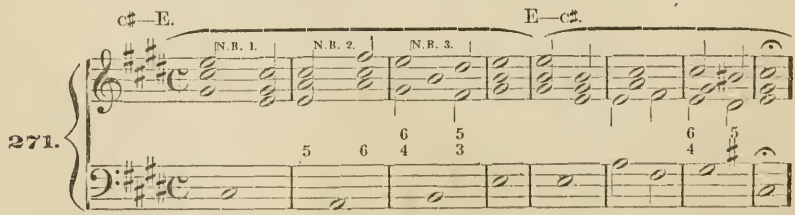
Practice in various keys should here follow.

The following exercise will serve as a *resume* of the modulations from a major to its parallel minor mode and *vice versa.*



The above is simply two modulations united, with the rhythm so arranged as to fulfill all the conditions of a well-ordered musical period, with its divisions and sub-divisions of thesis, antithesis and sections. All the modulations which the pupil may have worked out from a major to its parallel minor, and the reverse, may now be united in a similar manner to Ex. 270. Though somewhat difficult to accomplish, it will be all the better if the exercises are rhythmically ordered, and, to this end, see that the *thesis* and *antithesis* contain the same number of measures, also that the *sections* are of equal length, and that the *rhythm* of each section is similar to that in the others. Be sure that the Fourth-Sixth accord falls upon an accented part of the measure.

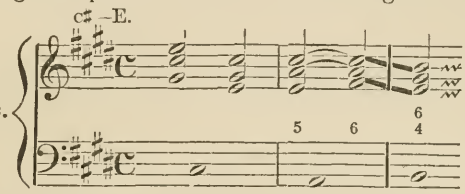
The reverse of the modulation shown in Ex. 270, should now be attempted, *viz:* from a minor to its parallel major mode and back, *e. g.*



It will be seen from Examples 270 and 271, that the rhythmic motion can be produced in various ways. It is not necessary that the Bass, any more than any other voice, shall continually follow the rhythm. If more rhythmic

motion is at any time desired than the Bass already presents, it can be gained very easily by causing the upper voices to spring to another position of the same chord, as at N. B. 1, Ex. 271, or making use of two different chords upon the same Bass, as at N. B. 2 and 3 of Ex. 271, or by a subsequent-seventh, as in the last measure but one of Ex. 270. At N. B. 2, Ex. 271, the Third-Sixth accord enters spring-wise. The privilege was used here to prevent the false voice-leadings which would have occurred in the succeeding progression, had the Third-Sixth accord been connected with its preceding accord (A major). The following example shows what the result might have been:—

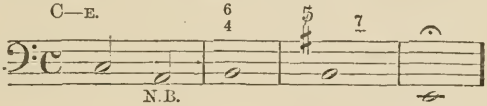
272.



MAJOR TO ITS RELATIVE THIRD ABOVE.

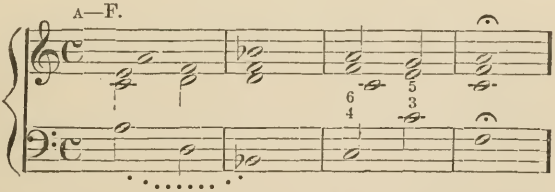
Commencing with C major, this modulation will be to E minor. The new Sub-dominant-triad (A minor, see N. B., Ex. 273) being common to the mode of C major, that accord can follow immediately, and with the remainder of the complete close, the new key (E minor) will be firmly established, *e. g.*

273.



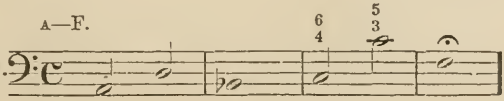
Ex. 274 shows the reverse of the above, the modulation from a minor to that major mode situated a major third below, for example, from A minor to F major.

274.



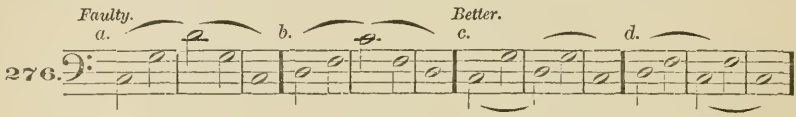
The Bass, in the first two measures of Ex. 274, is not melodic. The A and B♭ (see dotted line) do not stand in a melodic relation to each other, and the note between (D), does not remove the objection. It is to be avoided by taking the A an octave lower, as in Ex. 275, which is melodic with both D and B♭.

275.



If a composition is to be made natural and flowing, not only each two, but each three or more notes, according to circumstances, should have a melodic connection.

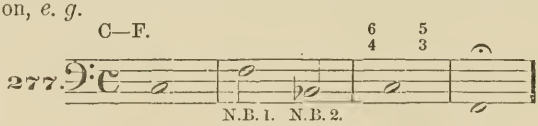
The mind and voice of the vocalist perceives and attacks each successive note by placing that in connection with one or more of its preceding notes. Of course the difficulty of attack is increased in proportion as the melodic element is wanting. Neither of the note-connections at *a* and *b* of Ex. 276, can be regarded as melodic, it makes no difference in which voice they might occur. They are improved at *c* and *d* of the same example:—



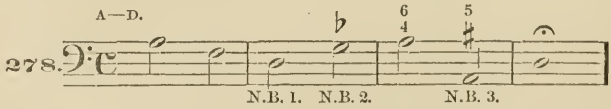
Modulations from a major to the minor mode, a relative third above, and back, should now follow, for example; from C major to E minor and back; F major to A minor and back, etc. Then the modulation should be reversed, for example: from E minor to C major and back; A minor to F major and back, etc. The models given in Ex's. 270 and 271 are to be referred to.

MODULATION TO THE SUB-DOMINANT.

Beginning, as before, with the key of C major, the modulation will be to F major. The new Tonic-triad being common to the mode from which we start, it can follow immediately, as at N. B. 1, Ex. 277. The new Sub-dominant-triad (N. B. 2) and the remainder of the complete cadence to F major finish the modulation, *e. g.*



Ex. 278 shows a very similar process in modulating from a minor to the mode of its Sub-dominant, which is of course minor also.

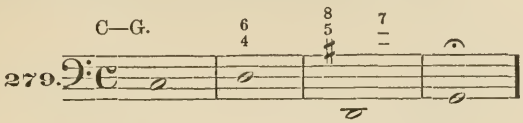


The new Tonic appears at N. B. 1, the new Sub-dominant at N. B. 2, and the new Dominant at N. B. 3. The latter, according to our rule for modulation, must be a *major* triad, in *minor* as well as in *major* modes, therefore the chromatic sign (♯).

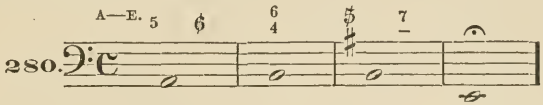
MODULATION TO THE DOMINANT OR FIFTH.

For example, from C major to G major. The Tonic-triad of the commencing key (C major) is at the same time the Sub-dominant-triad of the new

key (G major). All that is necessary to complete this modulation, is therefore to add the remainder of the usual cadence, *e. g.*



The above is to be repeated concerning this modulation in minor modes, for example, from A minor to E minor:—



In Ex. 280, as the first chord is already the new Sub-dominant-triad, we make use here also of the Third-Sixth accord which may always appear upon the Sub-dominant in a cadence. The intervals of this Third-Sixth accord must always be arranged according to the *new key*, in the cadence of which it occurs, and not according to the preceding key. In the above example, therefore, this accord cannot appear (in classical modulations) as A, C, F, but as A, C, F♯, because in the *new key* (E minor) the letter F is sharped.

TONIC TO SUB-DOMINANT AND BACK.

Modulations may now be formed from any Tonic to its Sub-dominant (major or minor) by the process described in Examples 277 and 278, and then from that Sub-dominant back to the Tonic, this latter being the same as a modulation from a Tonic to its Dominant (a fifth upward), a process described in Ex's. 279 and 280. Arrange the exercise similar to No. 270; then reverse the modulation, *viz:* from a Tonic to its Dominant and back.

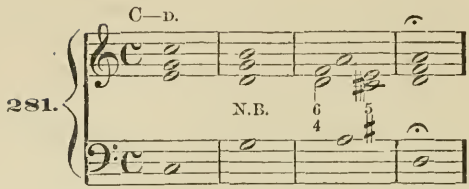
TONIC TO ITS SECOND.

Thus far, the modulations have been from a Tonic to the nearest related keys, *viz:* to the relative thirds below and above, and to the Sub-dominant and Dominant. There still remain two triads common to the same mode, but more distantly related.

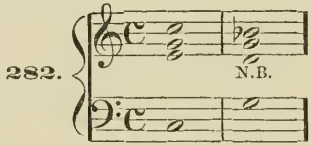
They are situated upon the second and seventh degrees of the major scale, but only one, that on the second degree, can be used as the Tonic-triad of a new key, the other being a *dissonant* triad.

The modulation from a Tonic to its second, for example, from C major to D minor, requires a few remarks.

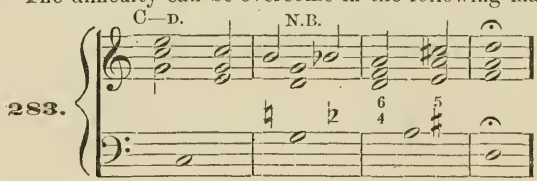
The *new Sub-dominant* (G) is a tone common to the mode of C major, and, at first thought, it would appear that the new Sub-dominant-*triad* could succeed the commencing chord, as at N. B., Ex. 281.



The first two chords, in the above example, are rightly connected, but the *second* and *third*, (G major and D minor) are not. The accord at N. B. is a *major* triad, whereas the Sub-dominant-triad in the cadence to a minor mode must be *minor*. Supposing, however, that this triad be made minor by flatting its third (B), as follows:—



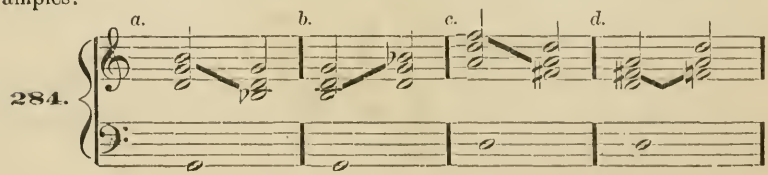
The fault would only be removed to another place, not avoided, for now the *first* and *second* chords are not properly connected. Our rule sets forth that *each chord* (in classical modulations) *must be common to the same mode as its immediate preceding accord.* In the above example, the G minor triad can not immediately follow the C major, because it is not common to the mode of C major. The difficulty can be overcome in the following manner:—



At N. B. of Ex. 283, the G major triad is converted into G minor by means of a *chromatic alteration of the third.* The chord-succession is now correct, (see following rule).

CROSS RELATION.

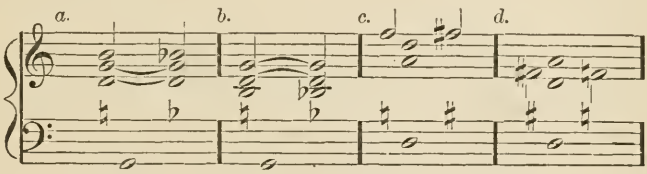
Wherever it may be deemed advantageous, as it certainly was in the foregoing case, *a major accord may be converted into a minor, or a minor into a major, by chromatically altering its third, but this alteration must take place in the same voice, otherwise a Cross Relation arises,* as in the following examples:—



At *a*, Ex. 284, the G major accord is converted into G minor, but the tone to be altered (B), instead of remaining in the Soprano, passes to the Tenor. At *b*, *c* and *d*, are similar examples, the altered tone appearing each time in a different voice. The effect of these chord-successions is strangely disjointed; the cause of this effect is simply that the rule for voice-leading is transgressed. Here, in each example, are two different accords; at *a*, they are G major and G minor. Our rule says that *those tones common to both accords*, if there be any, *shall be retained in the same voices.* The D and G, of the first accord at *a*, should be retained in the second accord as Tenor and Alto, instead of springing to B♭ and D; then the Soprano (B) of the first accord need only progress to B♭ (see *a*, Ex. 285). To the rule above given, we may now add that all or any tones to be chromatically altered, in connected accords, must receive that alteration in the same voice.

According to these rules, the chord-successions shown in Ex. 284, are correctly written as follows:—

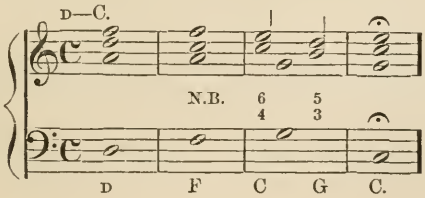
285.



SECOND TO THE TONIC.

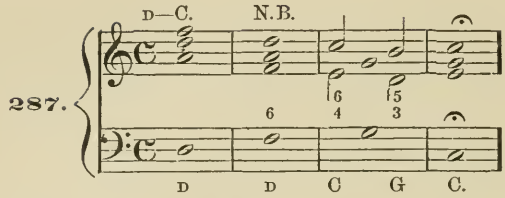
Here follows the reverse of Ex. 283; *i. e.*, a modulation from the triad on the second degree of the major scale back to the Tonic; for example, from D minor to C major. The new Sub-dominant-triad (F major) is closely related to the commencing key; that, and the cadence, can therefore immediately follow, *e. g.*

286.



NOTE.—The letters underneath (the *fundamentals* of each accord) are placed here for the sake of comparison with those of Examples 287 and 288.

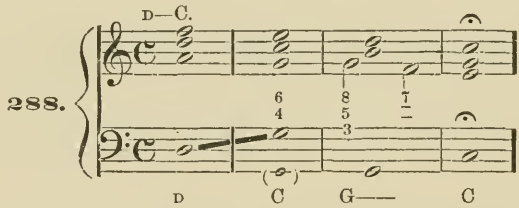
Instead of the *triad* of the new Sub-dominant (F, A, C), a Third-Sixth accord (F, A, D) can appear upon the Sub-dominant which is the triad of D minor in its Third-Sixth position, (see N. B. Ex. 287).



No change of *harmony* is apparent here, in the first two measures, only a change of *position* of the same harmony (see fundamentals). The Third-Sixth accord is then followed by the new Tonic-triad in its Fourth-Sixth position, the same as in previous cadences.

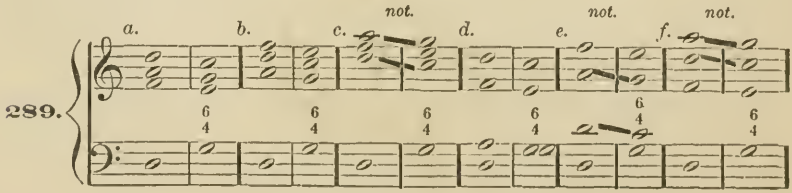
FREE ENTRANCE OF THE FOURTH-SIXTH ACCORD.

If the C major Fourth-Sixth accord can succeed the D minor triad in its Third-Sixth position, it can also succeed that triad in its Fundamental position, thus omitting the Third-Sixth accord, used in Ex. 287, thus:—

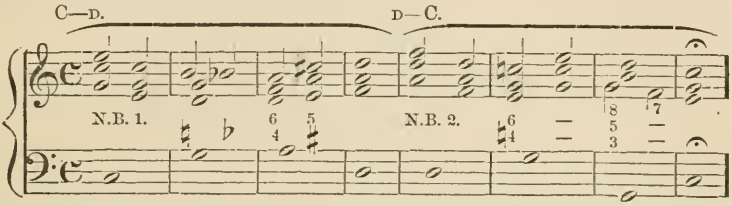


Heretofore, all the voices of the Fourth-Sixth accord have entered and progressed *degree-wise;* here, the Bass enters *spring-wise;* hence, the entrance is said to be *free; i. e.*, abrupt, without connection. It is to be remarked that the succession is much better if the Bass (D) ascend to G, rather than descend to the G in parenthesis, on account of securing contrary motion, and the avoidance of a covered octave. It is rarely advisable that all the voices move in similar motion.

The placing of the voices of the minor triad, used in the last example, is also to be considered, for, while some are usable, others must be rejected. We present in the following example (No. 289) the varied arrangement of the voices, close and open, in such a chord-succession as that in Ex. 288. Those at *a*, *b* and *d* are usable, and those at *c*, *e* and *f* must be rejected on account of the consecutive fifths.



Examples 283 and 288 may now be united in a modulation from a Tonic to its second and back. See that the rhythm, in all these united modulations, is suitable one to the other. Thus, in Ex. 283, the rhythmic motion, in the first measure, is expressed in half-notes, while in the corresponding measure in Ex. 288, there is a whole-note. The rhythm in these two measures may be made alike by dividing the whole-note into half-notes, and, as the chord in the first measure of Ex. 283 changes the position of its voices, progressing them all downward, so, also, the resemblance will be stronger in Ex. 288, if the chord in its first measure, after being divided into half-notes, make a similar progression downward, (see N. B. 1 and 2, Ex. 290).



This completes the directions upon modulation from a given Tonic-triad to the Tonic-triads of other keys common to the same mode. It is only necessary to repeat that the surest means of firmly fastening these modulations in both mind and fingers, is to write and play them in all keys in both close and open position of the harmonies. In addition to this, it will be found excellent practice for the pupil to *name* the chords and their positions, necessary to effect any chosen modulation. The pupil is thus doubly or triply grounded in the process.

CHAPTER XVII.

MODULATIONS TO MORE DISTANT KEYS.

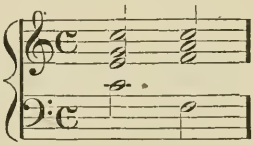
We shall consider, in this chapter, modulations between two keys, whose Tonic-triads are *not* common to the same mode; for example, from C major to B♭ major and *vice versa;* C major to E♭ major and *vice versa*, etc. According to principles explained on pages 90, 91 and 94, a chord-progression is depressed one relative degree when the *fundamental falls a major fifth*, or it is elevated one relative degree when the *fundamental rises a major fifth.* In this present species of modulation, it is first of all to be decided whether the new key is to be reached by *depression* or *elevation*, one, two or three relative degrees, (for a greater number than three, a special process will be duly explained). If the new key has more flats or less sharps in its signature than the commencing key, then the process is *depression.* If the new key has less flats or more sharps, then it is *elevation.* The process of modulation here, is simply as follows: *The fundamental falls or rises a major fifth each time*

until the new Tonic-triad or new Sub-dominant-triad is gained. The new key is then to be established according to the method with which we are already familiar, viz: by a complete cadence.

FROM C MAJOR TO MAJOR KEYS WITH FLATS AND RETURN.

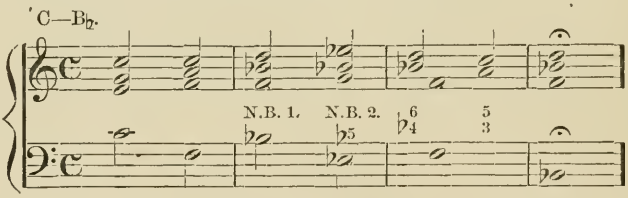
To illustrate this, we will commence with a modulation from C major to B♭ major. The new key (B♭) having more flats than the commencing key (C), the process is *depression*, hence, the *fundamental* falls a major fifth to F, and as the triad of C was major, so also the triad of F will be major, (see Ex. 291).

291.



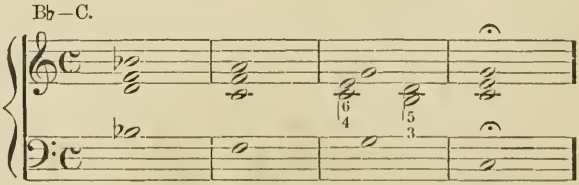
The modulation is now depressed one relative degree, and neither the new Tonic nor new Sub-dominant-triad have as yet appeared, so the *fundamental* (F) falls again a major fifth, to B♭, and here appears the new Tonic-triad (see N. B. 1, Ex. 292). At N. B. 2 the new Sub-dominant-triad follows and the remainder of the cadence establishing the key of B♭ major, *e. g.*

292.



The returning modulation (B♭—C) may be effected in the following manner. The new key having less flats than the commencing key, the process is through *elevation*. The *fundamental* (B♭) therefore *rises* a major fifth to F (one relative degree above B♭) which is already the new Sub-dominant. Upon it a major accord appears, followed immediately by the Fourth-Sixth position of the new Tonic-triad and the remainder of the cadence to C major, *e. g.*

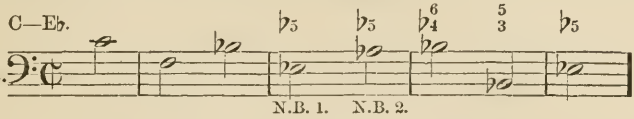
293.



The principles applied in the last two examples (292, 293) are now to be employed in a modulation from C major to E♭ major and back, one relative degree farther removed. The process is precisely the same as in Ex. 292, only the

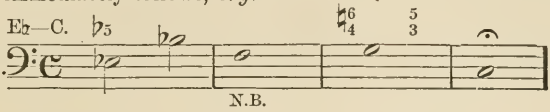
fundamental falls *three* relative degrees before the new Tonic is gained (see N. B. 1, Ex. 294). The cadence then follows (new Sub-dominant at N. B. 2). The upper voices should be filled out by the pupil:—

294.



The return modulation (E♭—C) is effected by *elevation*, three relative degrees, similar to Ex. 293. The *fundamental* rises each time a major fifth until the new Sub-dominant (F) is reached (N. B, Ex. 295). The remainder of the cadence immediately follows, *e. g.*

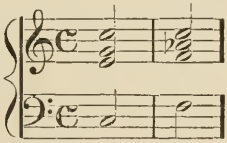
295.



DEPRESSION FOUR RELATIVE DEGREES.

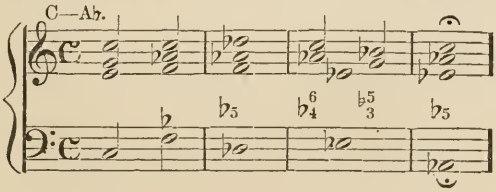
The modulation from C major to A♭ major, which is one relative degree still farther removed, could also be effected in the same manner as the foregoing, *viz:* the *fundamental* would *fall* to F, then B♭, E♭ and A♭, the last of which, being the new Tonic, would be followed by the cadence. There is a shorter and more interesting way, in which the modulation can be depressed four relative degrees at once. This occurs when *a major triad is succeeded by its minor Sub-dominant-triad.* As the keys of C major and A♭ major are four relative degrees apart, we can make use of this method of modulation here. The C major accord will therefore be followed by its minor Sub-dominant-triad, thus:—

296.



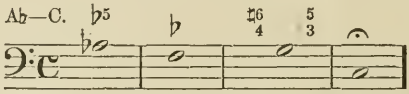
The key of F minor (the parallel key of A♭ major), whose signature has four flats, therefore four relative degrees below C major, is thus reached in one step. Having reached a triad common to the new mode, the new Tonic-triad or the new Sub-dominant-triad may next follow. The new Sub-dominant (D♭) is situated a major third below F, and a triad upon this tone, followed by the remainder of the complete cadence, will establish the new key (A♭ major), *e. g.*

297.



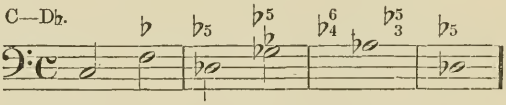
The modulation from A♭ major back to C major will be an *elevation* of four relative degrees. Related in the third to A♭, is the triad of F minor, which can be used as the Sub-dominant-triad of C major, the new key, *e. g.*

298.



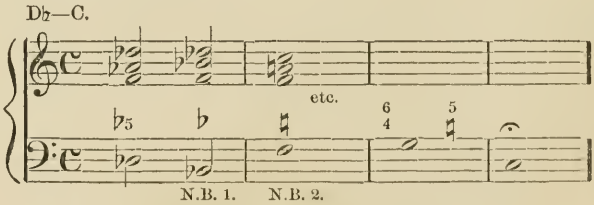
From C major to D♭ major is a *depression* of five relative degrees. We can first depress the modulation one degree, and then four, or *vice versa*, or by single degrees, as we choose. If the modulation is first depressed four degrees, it is effected the same as in Ex. 297, by taking the minor Sub-dominant-triad of a major accord (see first measure, Ex. 299). The new Tonic-triad (D♭) can then follow, being related in the third to F minor. The new Tonic being gained, nothing remains but to establish it by means of the usual cadence, *e. g.*

299.



The return modulation (D♭—C), an elevation of five relative degrees, accomplished by single degrees is long and monotonous. Corresponding to the depression of four relative degrees at one progression, we have a means of elevation the same number of degrees, *viz: when a minor triad is succeeded by its major Dominant-triad.* The first point is to secure the *minor* accord. Related in the third, below every major triad, there is a minor triad. In the present modulation (D♭—C, Ex. 300) the D♭ triad is major, therefore, we take the minor triad upon its relative third below (B♭ N.B. 1) and follow this with its major Dominant-triad (F, A, C, N.B. 2). This accomplishes an elevation of four relative degrees, because the key of F major has four flats less than that of B♭ minor. The triad of F major is the new Sub-dominant-triad. The remainder of the cadence follows, *e. g.*

300.



The modulations from C major to G♭ major and back, and from C major to C♭ major and back, will offer no especial difficulty. From C major to G♭ major is a depression of six relative degrees. This makes one depression of four degrees and two of one degree each. The division or order is optional; first the four and then the single degrees, or first one, then four, then one, or last

ly, the single degrees and then the four. There are two points to be remembered concerning elevation or depression four relative degrees in one step, *viz:*—

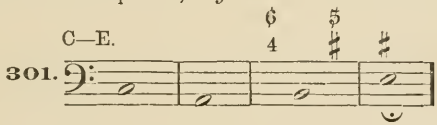
1. *Depression four relative degrees results when a major triad is followed by its minor Sub-dominant-triad.*

2. *Elevation four relative degrees results when a minor triad is followed by its major Dominant-triad.*

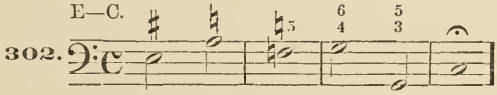
FROM C MAJOR TO MAJOR KEYS WITH SHARPS AND RETURN.

Modulations from the Normal mode to all keys with *sharps*, should now be attempted. They are effected in the same manner as the foregoing, except that the progression *from* C major is *elevation*, and that *toward* C (the return modulation) is *depression.*

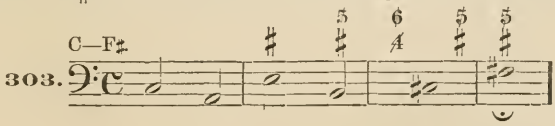
An example or two will clear away any apparent difficulty; for instance, from C major to E major. The process is by elevation, four relative degrees at once. Related to the C major triad is that of A minor, which can be used as the minor Sub-dominant-triad to E major. The rest of the cadence follows and the modulation is completed, *e. g.*



The return modulation (E—C) may be accomplished thus: depress four relative degrees by following the E major triad with its minor Sub-dominant-triad (A, C, E). The new Sub-dominant-triad (F, A, C,) can then follow with the cadence to C major.



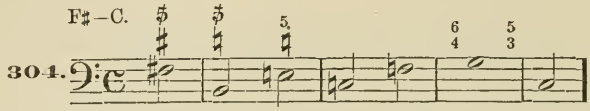
From C major to F♯ major is an elevation of six relative degrees. We pass over four by gaining a minor triad and succeeding it with its major Dominant-triad (see first three chords in Ex. 303). The *fundamental* (E) then rises one relative degree to B, which is the Sub-dominant of the new key. In the cadence of F♯, the elevation of the last degree of the six takes place, *e. g.*



The return (F♯—C) is by depression. The F♯ major is followed by its minor Sub-dominant-triad (B, D, F♯), thus accomplishing *four* of the six degrees depression. The *fundamental* (B) then falls a fifth to E, upon which a *minor* triad must appear.

RULE.—*Whenever the fundamental of a minor triad falls a major fifth, both accords must be minor, (in minor the sub-dominant triad* must be *minor*).

Related in the third to E minor, is the new Tonic-triad, C major. The cadence then follows, *e. g.*



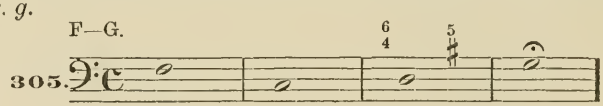
The earnest pupil will work out and play the modulations from C major to each one of the other major keys with sharps and back to C major. All the principal connecting triads between these keys are thereby learned.

MODULATIONS FROM KEYS WITH FLATS TO THOSE WITH SHARPS AND VICE VERSA.

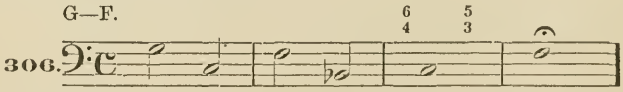
From keys with flats to those with sharps, the modulation is by elevation; from sharps to flats, depression. To learn the number of degrees between the two keys, it is only necessary to add the number of flats and sharps in both signatures together.

REMARK.—No signature will be used in the following examples, the triads being sufficient to represent the mode. The use of the signature here would be of no practical value; on the contrary, it would necessitate a great number of accidentals.

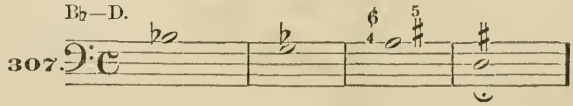
In the first modulation (F—G, one flat to one sharp), an elevation of two relative degrees, the *fundamental* (F) rises a major fifth to C, which is already the new Sub-dominant. The rest of the cadence completes the modulation, *e. g.*



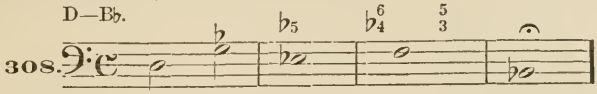
From G major to F major is a depression of two relative degrees. The *fundamental* falls a major fifth twice, thereby reaching the new Tonic (F) which is then established by the cadence.



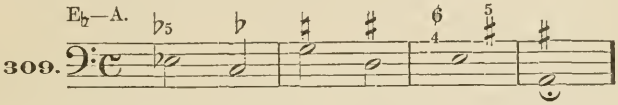
From B♭ major to D major is an elevation of four relative degrees. Related in the third to B♭ is the triad of G minor which can be used as the minor Sub-dominant-triad to the new key.



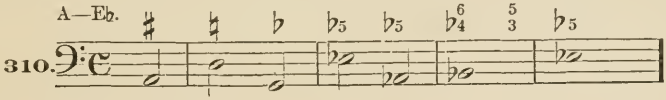
The return from D major to B♭ major is a depression of four relative degrees. The four degrees may be passed over in one step by taking the minor Sub-dominant-triad of D major (G minor). The new Sub-dominant-triad then lies a major third lower (E♭). Cadence.



From E♭ major to A major is an elevation of six relative degrees. An elevation of four degrees may be effected by following a minor triad with its major Dominant-triad. Related in the third to E♭ major, is the triad of C minor; this may be followed by its major Dominant-triad (G, B, D), thus accomplishing the four degrees. The *fundamental* (G) of this triad then rises a fifth to D, which is the new Sub-dominant. Cadence.



The contrary modulation (A—E♭) is a depression of six degrees. Four of these may be passed over by following the A major triad with its minor Sub-dominant-triad (D, F, A The *fundamental* (D) then falls a fifth to G upon which a minor triad must appear, (see rule, page 118). Related in the third to this triad (G minor), is that of the new Tonic (E♭). Cadence.



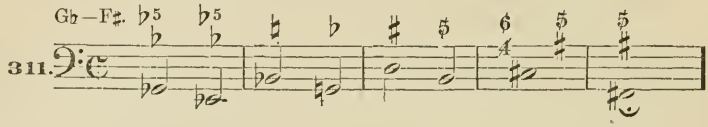
The remaining modulations, *viz:*—

A♭—E and back,
D♭—B and back,
G♭—F♯ and back,
C♭—C♯ and back,

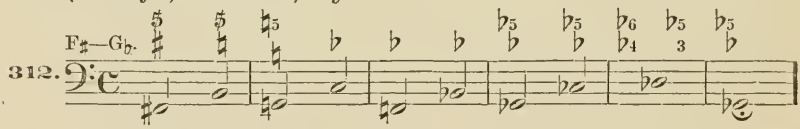
can now be worked out by the pupil, with the aid of the foregoing examples. A few words, however, respecting that from G♭ major to F♯ major and back, may be opportune.

Thus far, we have confined ourselves exclusively to modulations with the employment of the most natural chord-connections, according to the strictest classical rules. The G♭ major and F♯ major, therefore, cannot be considered as one and the same key, here; the enharmonic change is not allowed. These two keys stand twelve relative degrees apart, and the modulation must pass over this long distance, in the same manner as all those preceding, as follows.

1*st.* Elevate four relative degrees by following the E♭ minor triad (related in the third to the commencing key, G♭ major) with its major Dominant triad (B♮, D, F). 2*nd.* Elevate four degrees more by following the relative minor triad of B♭ major (G minor) with its major Dominant-triad (D major). 3*d.* Related in the third to D major is the B minor triad which is the minor Sub-dominant-triad to the new key. Cadence.



The return modulation (F♯—G♭) may be effected in the following manner. 1*st.* The F♯ major triad may be followed by its minor Sub-dominant-triad (B, D, F♯), thus gaining four of the twelve degrees depression. 2*nd.* In order to accomplish the next four degrees, we must first secure a *major* accord, and follow it with its minor Sub-dominant-triad. Related to B minor in the third, is the G major triad; its minor Sub-dominant-triad (C minor) now follows, thus accomplishing the second four degrees. 3*d.* We may now proceed by single relative degrees, the *fundamental* of the C minor triad being caused to fall a fifth to F, upon which a minor triad must appear (see rule page 118) and then again to B♭ minor. Related in the third to B♭ minor is the new Tonic (G♭ major). Cadence, *e. g*



Modulations from minor to major modes, major to minor, and minor to minor, have been omitted until now. They will present no especial difficulty if the following points are well-remembered.

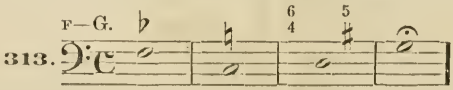
1. *Every minor triad has a major triad upon its relative-third below.*

2. *The Sub-dominant-triad of a minor mode must always be minor.*

3. *A major triad can always be converted into a minor by depressing its third a small half-step.*

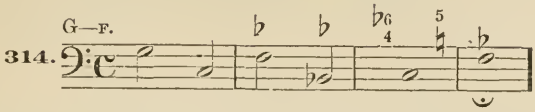
We present here a few examples:—

F minor to G major, an elevation of five relative degrees. Four degrees are accomplished by following the F minor with its Dominant-triad (C major). This is at once the Sub-dominant-triad of the new key, *e. g.*

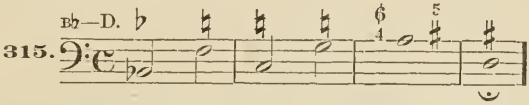


The return (G—F) is a depression of five degrees. The *fundamental* (G,

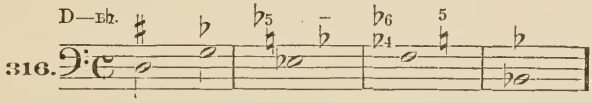
falls one degree to C, and then four to F minor, which is the new Tonic. Cadence, *e. g.*



From B♭ minor to D major is an elevation of seven degrees. The Dominant-triad to B♭ minor (F, A, C), elevates the modulation four degrees. The *fundamental* of this triad (F) then rises a fifth to C, then again to G, which is the new Sub-dominant, *e.g.*

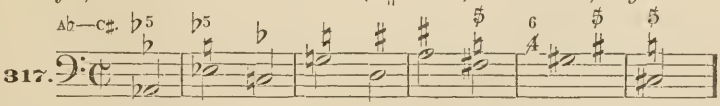


Returning from D major to B♭ minor is a depression of seven degrees. The D major accord may be followed by its minor Sub-dominant-triad (G, B♭, D), accomplishing four degrees. Related in the third to G minor, is the triad of E♭ major. This may be converted into the new Sub-dominant-triad by flatting its third (G), for, according to the invariable rule, a minor mode demands a *minor* Sub-dominant-triad. Cadence, *e. g.*



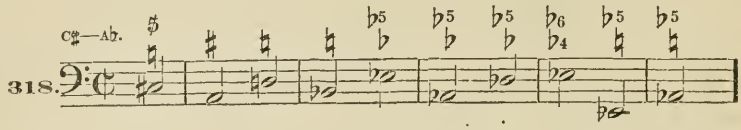
The foregoing examples sufficiently illustrate modulations from minor to major modes, and major to minor. The following examples are modulations from minor to minor.

From A♭ minor to C♯ minor, is an elevation of eleven relative degrees. We pass over four degrees by following A♭ minor with its major Dominant-triad (E♭, G B♭). In order to accomplish the next four degrees in one progression, we must first secure a *minor* accord. Related in the third to E♭ major is the triad of C minor, which we follow with its major Dominant (G, B, D). The remaining three degrees will be passed over singly, therefore, the *fundamental* (G) rises a degree to D, then to A. Related in the third to A major, is the new Sub-dominant (F♯ minor). Cadence, *e. g.*



The return modulation (c♯—A♭) is a depression of eleven degrees. 1. To pass over four degrees we must first gain a *major* accord. Related in the third to C♯ minor is the triad of A major, which we follow with its minor Sub-dominant-triad (D, F, A). 2. Related to this in the third, is the B♭ major

triad; its minor Sub-dominant-triad (E♭, G♭, B♭) following, depresses the modulation four degrees more. 3. One degree below this, the new Tonic appears. Cadence, *e. g.*



CHAPTER XVIII.

SUCCESSION OF TRIADS NOT COMMON TO THE SAME MODE.

Thus far, we have carefully observed the rule for classical chord-succession; *i. e.*, each successive accord is found common to the mode of the accord immediately preceding. Romantic music, however, makes use also of accords immediately succeeding each other which do *not* occur in the same mode. If such striking chord-successions are to be employed, the following rules must be observed:—

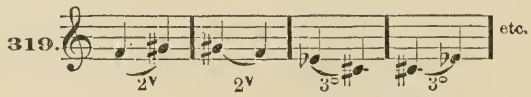
I. *Avoid unnatural voice-leading.*

II. *Avoid unharmonic cross-relations.*

III. *Retain similar tones, if there be any, in the same voices.*

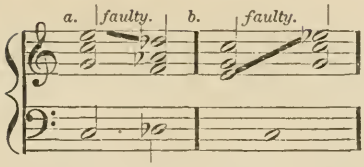
IV. *Wherever possible, avoid even covered fifths and octaves.*

If the leading of each individual voice is smooth and natural, the chord-succession (in modern music) is correct. If, however, the voice-leading is obliged to make use of unnatural progressions, in order to accomplish an attempted chord-succession, it must be rejected. By *unnatural progressions*, we mean here the progression of any voice an *augmented* or *diminished* interval, as for example:—



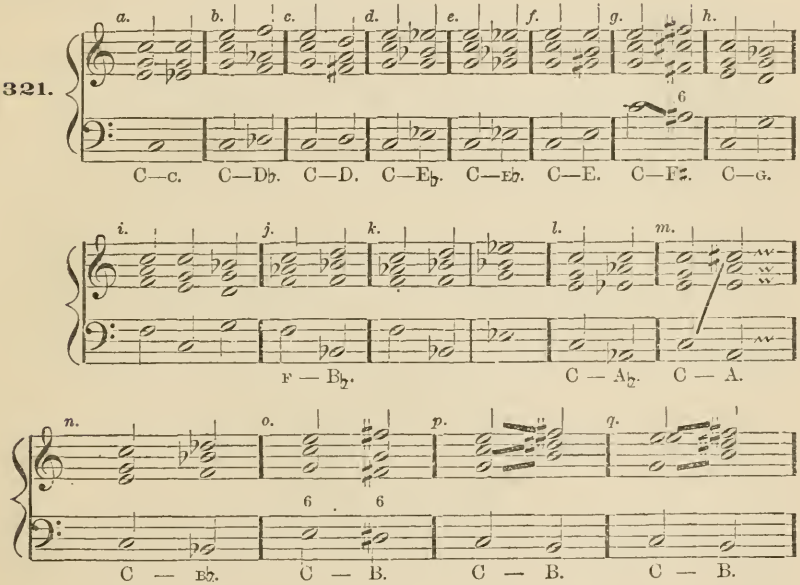
By *natural* progressions is therefore to be understood, major and minor intervals, so that if each voice can progress to its place in the new accord with the use of major or minor intervals, and not transgress the above rules, then the chord-succession may be pronounced correct. In Ex. 320, at *a*, the chord-succession is incorrect on account of the unnatural voice-leading in the Soprano (E—D♭, an augmented second, see Rule I). In Ex. 320, *b*, the voice-leading is all by means of natural progressions, but Rules II and III are disregarded, and a *cross-relation* appears between the Tenor and Soprano.

320.



We present below examples of the manner in which various Tonic-triads may succeed the Tonic-triad of C major.

321.



At *a* in the above example, the chromatic alteration is effected in the same voice (Tenor), thereby avoiding the cross-relation presented in Ex. 320. At *b*, the Soprano progresses a minor second upward (E—F) instead of an augmented second downward (E—D♭), as in Ex. 320. At *g*, the Bass makes an unnatural progression (C to A♯, a diminished third below). This chord-succession is sometimes used, in spite of the fault alluded to. The chord-succession at *h*, sounds disagreeably, by itself, because the Dominant-triad of a major mode should be major. In connection with other harmonies, as at *i*, the same succession is perfectly acceptable, because the G is no longer reckoned as the Dominant to C, but as the second degree in the mode of F, in which G minor is to be found. At *j*, we present a similar example to that at *h*, and it will be remarked that the major triad upon B♭, after F minor, sounds harshly because a minor mode demands a *minor* Sub-dominant-triad. The same succession at *k*, however, is quite correct, because the F minor is now reckoned as a triad on the second degree in the mode of E♭ major, and not a *Tonic*-triad, as at *j*.

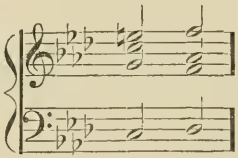
The B♭ triad is now the Dominant-accord to E♭ major, therefore, necessarily *major*. At *m*, a cross-relation occurs between C of the Bass and C♯ of the Soprano. This is one of the few instances in which frequent use has rendered such a fault tolerable. This succession often occurs. At *p*, the augmented second (C—D♯) in the Alto, though often used, may be avoided by doubling the *third* of the first chord, as at *g*. The covered fifths in the last two examples have also been heard so often that they no longer excite comment.

The foregoing are only a small part of the possible number of such chord-successions, for the progressions may be from—

Major to Major; Major to Minor; Minor to Major; Minor to Minor.

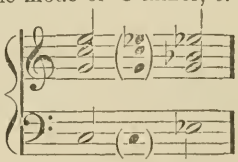
Following the observations already made, no great difficulty will be experienced in accomplishing all, and in selecting from the number those which are suitable for practical use, and in rejecting those which are not. In all such as *are* suitable for practical purposes, *i. e.*, not too abrupt, an *inner* connection will be found between the harmonies, though *outwardly* they may appear quite foreign. For instance, in the example at *b*, No. 321, the two triads, C and D♭ major, appear *outwardly* to have nothing in common with each other, yet this *inner* connection referred to, will be apparent at once, if F minor be regarded as the mode, for in this mode both of the above-mentioned triads are found, *e. g.*

322.



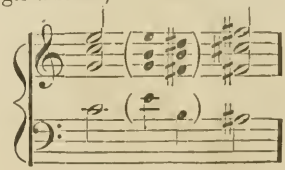
Both triads at *c*, Ex. 321, are common to the mode of G major. Again, at *d*, the inner connection is not so intimate, yet enough so for practical use. The triads of C major and C minor are certainly closely related, and the triad of E♭ major is common to the mode of C minor, *e. g.*

323.



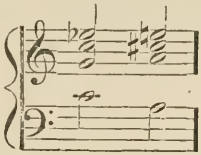
The most abrupt of all the progressions given is seen at *g*, Ex. 321. The inner connection, though distant, is to be traced in the following example:—

324



On the contrary, such a succession as that in Ex. 325, is too abrupt for practical use, as the connection is too far removed; the covered fifths are also bad here. This, and similar progressions, although the voices may be led according to the foregoing rules and observations, are therefore to be rejected.

325.



CHAPTER XIX.

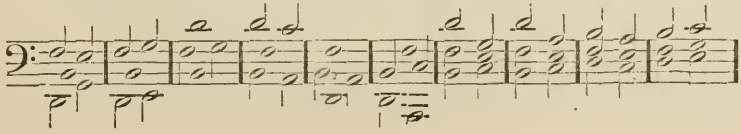
DISSONANT TRIADS. THE DIMINISHED TRIAD.

The diminished triad (so-called because next smaller than a minor triad), a dissonant accord, is composed of a *fundamental*, its *minor third* and *minor fifth*. Its dissonance, which is the minor fifth or its inversion, the major fourth, is so mild that the entrance of this triad requires no preparation. (*A tone is prepared when it has appeared in the same voice as a component part of the preceding chord.* A *chord* is prepared when *one* or *more* of its tones have thus appeared. By *free* entrance is meant the reverse of this; (*i. e.*, no previous appearance of any tone or tones is required).

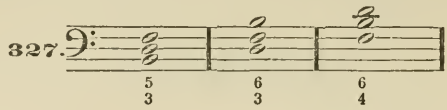
As a dissonance is the melodic retardation of a consonance, so, one or both of the tones (*fundamental* and *fifth*) forming the dissonance in the diminished triad must progress degree-wise into a consonance. This resolution may take place downward or upward; either is correct so long as a *consonance* is the result. The other voice (the *third*) being consonant with the remaining voices of the triad, like every consonant voice in general, its progression is free, spring, or degree-wise at will. In this wise, the diminished triad (B, D, F), situated upon the leading-tone in the mode of C major, may resolve regularly to the triads C major, F major, G major, A minor, E minor and D minor, *e. g.*

Resolutions of the diminished triad in the mode of C Major.

326.

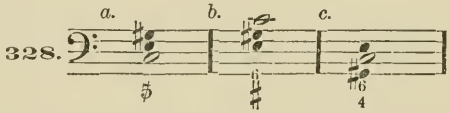


It will be self-understood that the diminished triad may enter not only free but also prepared; its dissonance in the latter case is of course still milder. Of its various positions (see Ex. 327) the Third-Sixth is always the most agreeable:—



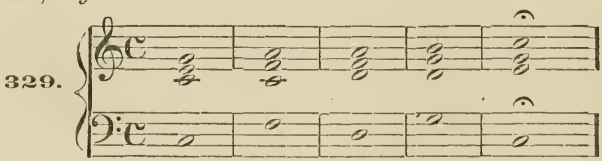
THE AUGMENTED TRIAD.

Reference has already been made to this triad (see pages 37 and 45). It consists of a *fundamental, its major third and augmented fifth,* and, like other triads, it can appear in its Fundamental (*a*, Ex. 328), Third-Sixth (*b*) or Fourth-Sixth position (*c*).

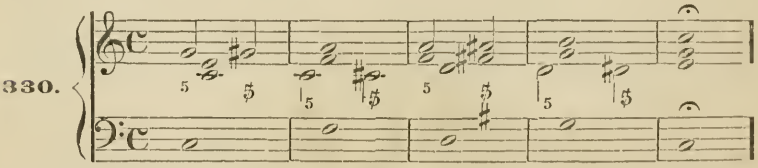


As a general rule, augmented intervals are resolved one degree upward; the *fifth* of this triad, with few exceptions, is always so resolved, and, requiring such a definite progression, it can *never be doubled.* The *entrance* of the augmented triad, on account of the sharpness of its dissonance, is best effected when the *fifth* of a *major* triad, or the *third* and *fifth* of a *minor* triad become elevated a half-step, as in Ex. 330.

For the sake of clearness, we first present a simple succession of major and minor triads, *e. g.*



If, now, the *fifth* of each *major* accord, and the *third* and *fifth* of the *minor* accord, be raised a chromatic half-step, the result will be an *augmented triad* in each instance, *e. g.*



In the first measure of Ex. 330, the fifth of the major triad (C, E, G,) is elevated to G♯, thereby creating the necessary relation for an augmented triad

(C, E, G♯). The G♯ then resolves upward to A. In the third measure, the *third* and *fifth* (F and A) of the minor triad are elevated a chromatic half-step to F♯ and A♯, and the augmented triad (D, F♯, A♯), results, etc. It would lead us too far to give all the possible manipulations of this triad, therefore it is deemed sufficient to present only its simplest and most practical form.

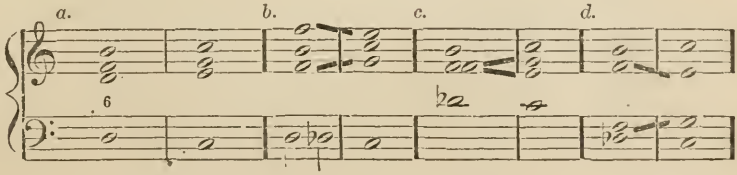
CHAPTER XX.

CHORD OF THE AUGMENTED SIXTH.

We have already remarked that the diminished triad sounds agreeably only in its Third-Sixth position. If this triad, in this position, appears in a major mode, its Bass will be the *second degree* of the scale. This second, as Bass of this accord, has the characteristic that it can be lowered a chromatic half-step without thereby displacing the accord from the mode. The chord which results from this procedure, presents as intervals, a *major third* and an *augmented sixth,* hence its name.

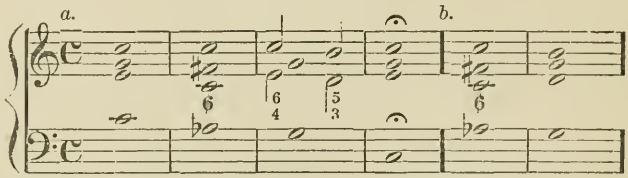
At *a*, Ex. 331, the diminished triad is shown as it occurs in the mode of C major in its Third-Sixth position. If the Chord of the Augmented Sixth is to be introduced, the Bass cannot be doubled, as at *a*, but the *third* must always be doubled, as at *b*, *c* or *d*. At *b* the diminished triad first appears, with its third doubled, and afterward the Bass (D) is lowered a chromatic half-step to D♭, when the requisite intervals (D♭, F, B) arise, necessary to form the above-mentioned Chord of the Augmented Sixth. The natural resolution is as seen at *b*, *c* or *d*, *viz:* the *leading tone* (B) progresses as usual to the Tonic; the doubled tone (F) in the Tenor and Alto necessarily resolves, in *contrary* motion, to E and G, in order to avoid parallel octaves or primes, and the Bass resolves degree-wise to the nearest tone in the chord of resolution, *viz:* to C. The *entrance* of the accord is here (*b*) prepared by the preceding D♮ in the Bass; the chord can also enter *free*, as at *c* or *d*, and the voices can of course be placed in several different ways, but the *third* must always be doubled in harmonies of four or more voices.

331.



In the following example (*a*), the Augmented-Sixth accord enters free, and does not appear to resolve itself regularly, as in the previous examples, inasmuch as the Fourth-Sixth position of the triad of C major follows immediately, instead of the triad of G major. The Fourth-Sixth accord *here*, as in general, is but a *retardation*, so to speak, of another triad in its Fundamental position upon the same Bass, as in complete cadences. The resolution of the Augmented-Sixth accord is simply retarded, but appears correctly in the G major triad following, the Fourth-Sixth accord having been interpolated for variety's sake (see also *b*, without this interpolated accord).

332.

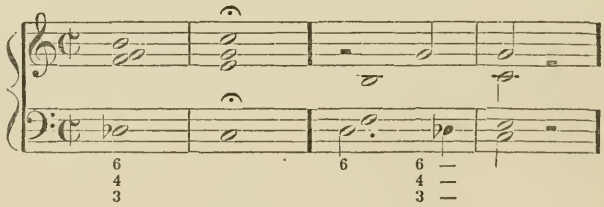


The Augmented Sixth accord can also appear with the major *fourth* added, and is then called

CHORD OF THE THIRD, FOURTH AND AUGMENTED SIXTH.

This accord may also enter free or not, at will, *e. g.*

333.

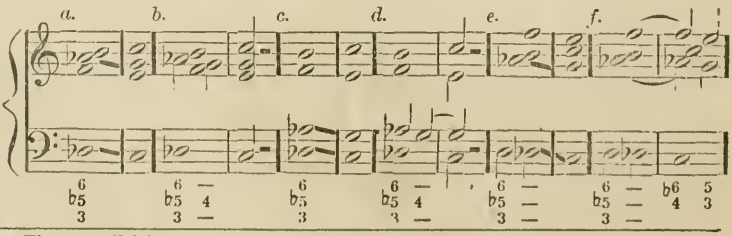


Instead of the *fourth*, the major *fifth* may be added to the Augmented-Sixth accord, the combination being then named

CHORD OF THE FIFTH AND AUGMENTED SIXTH.

Its entrance is free or not, at option, but the resolution exhibits *parallel fifths** (see *a*, *c* and *e*, Ex. 334), unless the *fifth* of the accord is resolved previous to the other voices, as at *b* and *d*, or, unless it and the third are suspended until after the other voices are resolved, (see *f*).

334.



*NOTE.—These parallel fifths are tolerated by many writers, now-a-days.

CHAPTER XXI.

ORGAN POINT. STATIONARY VOICES.

By the term Organ or Pedal Point (referring to the Pedal Bass of an Organ) is to be understood, a Bass which is sustained for a longer or shorter time, while above it, a succession of chords appear which have a connection among themselves, but no connection, necessarily, with this stationary Bass, excepting the first and last chord. An organ-point is oftenest made use of toward the end of a composition, in order to lengthen the cadence. There is no prohibition of its use, however, at any place where it may be deemed desirable.

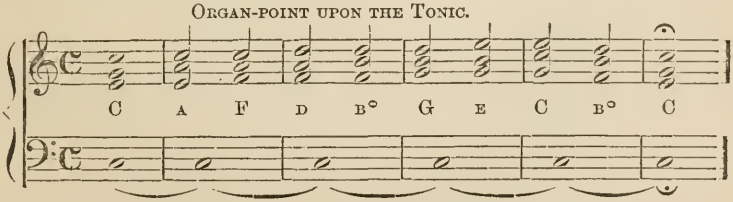
In the formation of an organ-point there are two essential particulars to be borne in mind, *viz*:

I. *The first and last chords must belong harmonically to the Bass.*

II. *The progressing chords, from beginning to end, must have a connection between themselves.*

In the following example (335), the C major triad may be regarded as indicating a cadence in the key of C major. The Bass of that accord is sustained while the upper voices progress regardless of it, first to the chord of A minor, then F major and so on *ad libitum*, using such chords as could be properly connected, not with the Bass, necessarily, but among themselves. It is advisable, however, to intermingle, here and there, chords which belong harmonically to the Bass, lest the trace of the principal mode be obscured and the effect of the organ-point thereby marred. In the third, fourth and fifth measures, sharp dissonances occur, but as all the chords are duly connected among themselves, the dissonances are perfectly allowable; the first chord properly introduces the organ-point, and the last gives the resolution. The letters indicate the *fundamentals* of the various chords, *e. g.*

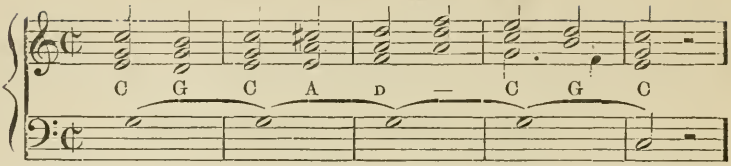
ORGAN-POINT UPON THE TONIC.

335. 

The Dominant may also be used in an organ-point formation, as in Ex. 336. Further, in addition to all the possible chord-successions of that mode, modulations to relative modes made be indicated, as for instance in the second and third measures, to D minor. The chords may also spring to any other position of the same harmony, as in the third measure, *e. g.*

ORGAN-POINT UPON THE DOMINANT.

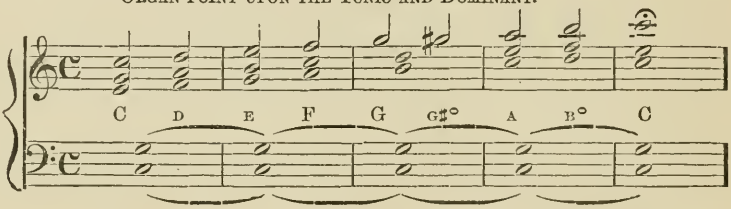
336.



Further, the Tonic and Dominant may be unitedly sustained, while the upper voices move independently of them, but, as before, according to the rules presented. The dissonances over two tones will naturally be sharper than over one, *e. g.*

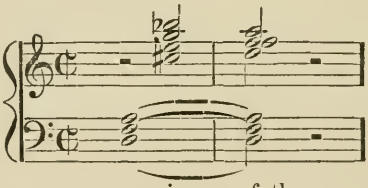
ORGAN-POINT UPON THE TONIC AND DOMINANT.

337.



Harshest of all is an organ-point with three sustained tones. This *very* rarely occurs, but is not impossible. We find a very similar example to the following in Beethoven's Ninth Symphony.

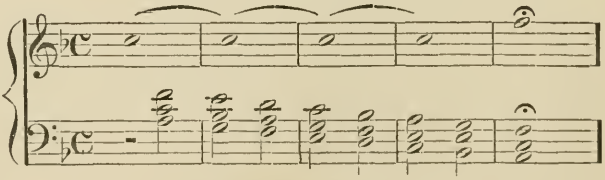
338.



Finally, sustained-tones may appear in any of the upper voices. The same rules are to be observed as already given, *e. g.*

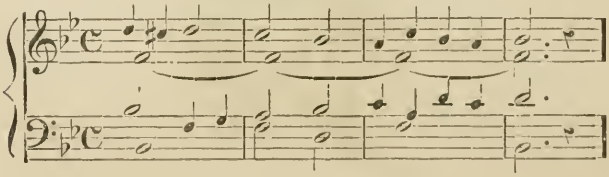
SUSTAINED TONE IN THE SOPRANO.

339.



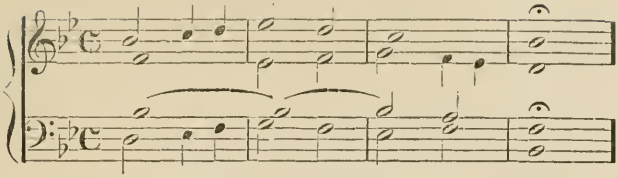
SUSTAINED TONE IN THE ALTO.

340.



SUSTAINED TONE IN THE TENOR.

341.



CHAPTER XXII.

CONCERNING THE HARMONIC ACCOMPANIMENT OF A GIVEN MELODY.

A melody or *cantus firmus* having been composed or selected, the following observations and examples will practically indicate the manner of adding correct and acceptable harmonies thereto.

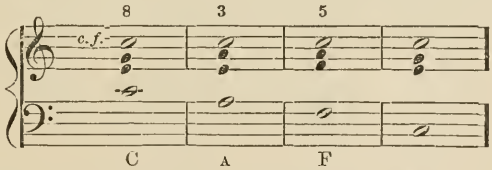
I. *Every tone of a given cantus firmus can be regarded as the octave, the third, or the fifth of a triad.*

II. *The chosen triad may appear in its Fundamental or Third-Sixth position.*

REMARK.—The Fourth-Sixth position, which is, as we have several times remarked, the weakest, least independent of the three, is either to be avoided or used as it has been hitherto, or as will be presently explained.

Every tone of a *cantus firmus* can belong to three different triads in the same mode, *e. g.*

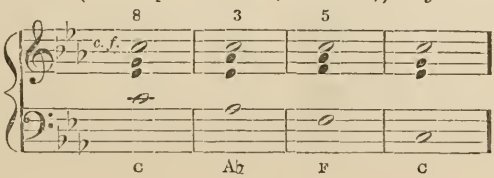
342.



In the first measure (Ex. 342) the C of the *cantus firmus (c.f.)* appears as *octave* of the C major triad; in the second measure, this same letter shows itself as *third* in the triad of A minor, and in the third measure, as *fifth* in the triad of F major. (The figures refer to the interval occupied by the *c.f.*, and the letters underneath to the *fundamentals*).

Every tone of a *cantus firmus* can also belong to three different triads in the similar-named mode (in the present case, C minor,) *e. g.*

343.



From these two examples, we see that a single tone may belong to three different triads in its own mode, and, when we digress from any certain major or minor mode to its similar-named minor or major mode, this same tone may belong to three additional triads, a total of six. To enumerate in concise form, a single tone may appear as follows:—

I. As *octave* of a major or minor triad.

II. As major or minor *third* of a major or minor triad respectively.

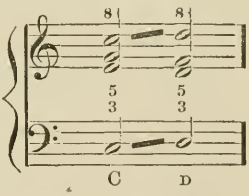
III. As *fifth* of a major or minor triad.

Having shown what can be done with *one* tone, the next step will be to indicate how *two* different successive tones in a *c. f.* can be harmonically treated. To illustrate this, we will make use of the tones C and D (major second), and our endeavor in the following examples will be to learn what triads and what positions of those triads can appear upon such a *cantus firmus;* whether or not the two chords can succeed each other in their Fundamental positions, ($\frac{5}{3}$ $\frac{5}{3}$), or the first one in its Fundamental ($\frac{5}{3}$) and the second in its Third-Sixth position ($\frac{6}{3}$), or *vice versa* ($\frac{6}{3}$ $\frac{5}{3}$), or both in their Third-Sixth positions ($\frac{6}{3}$ $\frac{6}{3}$). The following table presents a more condensed view of these various successions:—

1.	2.	3.	4.
5 5	5 6	6 5	6 6
3 3	3 3	3 3	3 3

I. If we apply such harmonies as will cause the C and D to appear as *octaves* of the *fundamental* of a triad, the triads will be C major and D minor, these two being common to the same mode, and according to the first formula ($\frac{5}{3}$ $\frac{5}{3}$), they will appear in their Fundamental positions, thus:—

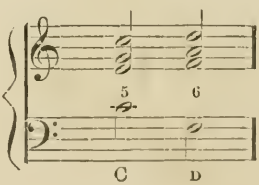
344.



In this formula, the Bass must also be C and D, therefore *open octaves* result, and this harmonic accompaniment must be rejected.

The second formula ($\frac{5}{3}$ $\frac{6}{3}$) will be found acceptable, the Bass acquiring thereby the tones, C and F, *e. g.*

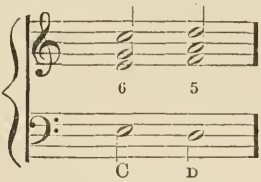
345.



It will be proper to suggest that wherever possible, it is better if at least one voice progress in contrary motion to the others, (see the above example). This often prevents, or better conceals, objectionable voice-leadings.

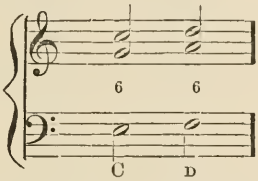
The third formula ($\frac{6}{3}\,\frac{5}{3}$) is also correct here, *e. g.*

346.



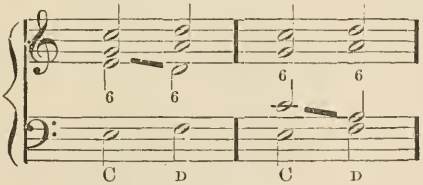
The fourth formula ($\frac{6}{3}\,\frac{6}{3}$) requires two Third-Sixth accords to follow each other. In cases where three out of four voices move in parallel motion, it will be found much easier if those three voices are written down first and the fourth voice added afterward, thus:—

347.



The fourth voice may now be added, remembering that wherever it is placed it *must progress in contrary motion to the remaining voices, e. g.*

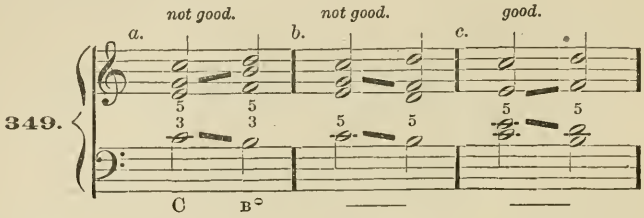
348.



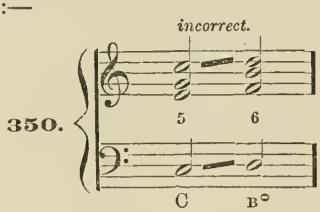
This completes the simple triad-successions in which C and D are taken as *octaves* of the fundamental.

II. We will now apply such a harmonic accompaniment to these same letters as *c. f.* as will cause the C to appear as *octave* and D as *third;* the triads will therefore be C major and B diminished. Succeeding each other in their Fundamental position ($\frac{5}{3}\,\frac{5}{3}$), these triads require a special treatment. As B is the *leading-tone* in the mode of C major, the succession at *a*, Ex. 349, would not be acceptable, as it is always objectionable to double that tone when its character as leading-tone shows itself so strongly as it does in the diminished triad (see remarks on this point, pages 92–3). Again, if the Tenor and Alto are led downward (as at *b*) in order to avoid doubling the leading-tone, consecutive fifths arise which sound badly in this case notwithstanding the fact that the second is a *minor fifth,* a succession sometimes quite allowable (see page 75).

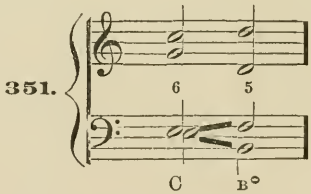
By doubling the *third* of the first accord (C major), thereby leaving out the *fifth*, and leading this doubled tone in contrary motion, all these faults are avoided, (see Ex. 349 at *c*).



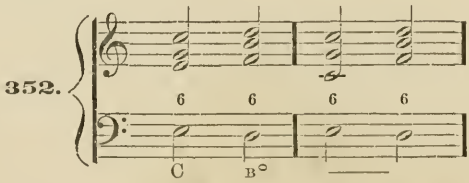
The second manner of succession ($\frac{5}{3}\,\frac{6}{3}$) cannot be used, on account of consecutive octaves, thus:—



We pass on to the third form ($\frac{6}{3}\,\frac{5}{3}$). This gives us again the Fundamental position of the diminished triad, which is always raw in its sound and more or less awkward to manipulate. However, by doubling the *third* of the first triad, and leading that duplication in contrary motion, the succession will be tolerable, thus:—

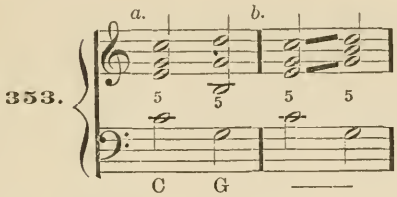


The last form ($\frac{6}{3}\,\frac{6}{3}$) will be found quite acceptable, as the Third-Sixth position of the diminished triad is its best, *e. g.*

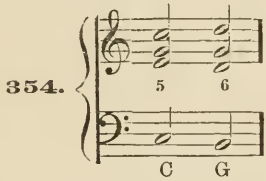


III. The accompaniment to this *c. f.* may be further varied by considering C as *octave* and D as *fifth*, therefore the harmonies will be C major and G major. In the first formula ($\frac{5}{3}\,\frac{5}{3}$) we give two examples, both of which are

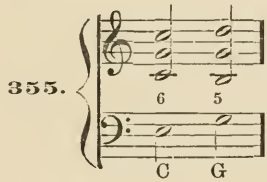
correct, the covered fifths, at *b*, not being objectionable; the Bass, however, should fall, inasmuch as the other voices (at *b*) rise.



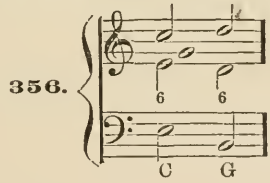
The second form ($\frac{5}{3}\,\frac{6}{3}$) is also good, *e. g.*



Of the different manipulations of the third form ($\frac{6}{3}\,\frac{5}{3}$) the following will be found the best:—



The fourth form ($\frac{6}{3}\,\frac{6}{3}$) is also good, *e. g.*

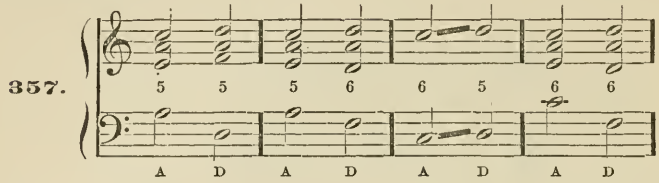


We have thus far regarded C as a member of the C major triad, *viz:* its *octave*, and have varied the succession by taking D as *octave* in the triad of D minor, then as *third* in the diminished triad of B, and finally as *fifth* in the triad of G major.

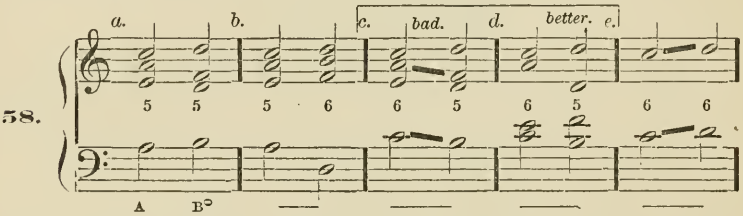
IV. We will now consider C as a member of the A minor triad (*third*) and D, as before, first as *octave*, then *third* and finally *fifth* in the triads of D minor, B diminished and G major, respectively.

Example 357, presents our *c. f.* (C D) harmonically accompanied by the triads of A and D minor, in the different positions of these triads according

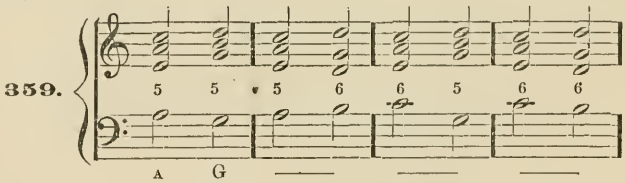
to the formula given on page 132. The third form must be rejected on account of the parallel octaves.



V. Accompanying our *cantus firmus* with the harmonies of A minor and B diminished, the third form $\left(\begin{smallmatrix}6 & 5\\ 3 & 3\end{smallmatrix}\right)$ needs special attention to the voice-leading in order to avoid an objectionable covered fifth (see Ex. 358 at *c*) or doubling the leading tone. Its correct treatment is seen at *d*. The fourth form $\left(\begin{smallmatrix}6 & 6\\ 3 & 3\end{smallmatrix}\right)$ is to be rejected on account of unavoidable parallel octaves (see *e*).

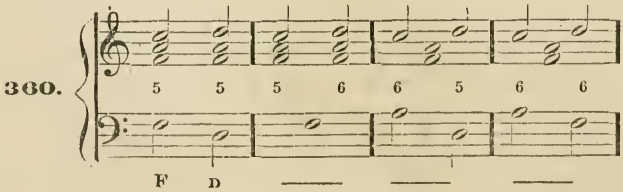


VI. In example 359, C appears as *third* in the triad of A minor, and D as *fifth* in that of G major. Each of the four formulæ are usable in this succession:—



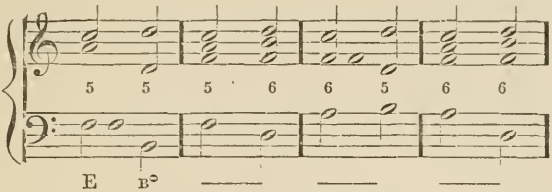
VII. In the following examples, C is taken as *fifth* in the triad of F major, and D, first as *octave*, then *third*, and then as *fifth* in the triads of D minor, B diminished, and G major, respectively.

The four forms of succession may all be used with the triads of F major and D minor, *e. g.*



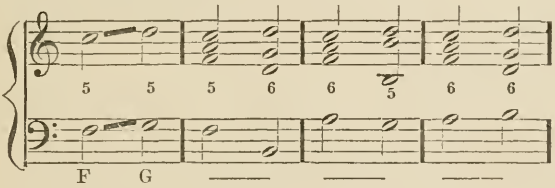
VIII. Our *c. f.* accompanied by the triads of F major and B diminished, requires special attention in the first and third formula, where the diminished triad appears in its Fundamental position (see remarks in connection with Ex. 358), *e. g.*

361.



IX. Using the triads of F and G major upon our *c. f.*, the first formula must be rejected on account of the unavoidable parallel fifths. The third form is only tolerable, on account of the distance between the voices, necessitated by the difficulty of avoiding faulty voice-leading, *e. g.*

362.



The variety of harmonic accompaniment upon this same *c. f.* (C D) may be greatly increased by applying the following harmonies, according to the various formulæ heretofore used, as C and D are component tones of these triads also. The chord-successions will therefore be as follows:—

C Minor to D Diminished.
" " " B♭ Major.
" " " G Major or Minor.

A♭ Major to D Diminished.
" " " B♭ Major.
" " " G Major or Minor.

F Minor to D Diminished.
" " " B♭ Major.
" " " G Major or Minor.

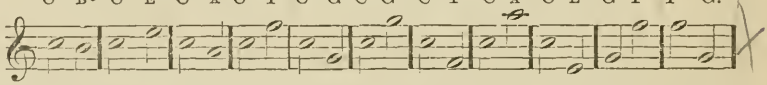
With the assistance of the preceding examples and explanations, it will not be a difficult matter to work out the additional successions above enumerated. Where unavoidable faulty voice-leadings show themselves, the succession is of course to be rejected. It will be found, when the above chord-successions have been as fully developed as those already worked out, that this simple *cantus firmus* of two tones can be harmonically accompanied in nearly fifty different ways with *triads* alone, and the voice-leading, even in the simple form we have here used, may be almost infinitely varied.

All the remaining intervals presented in a major scale should now be treated the same as the foregoing major second (C D). We present below, example

363, the principal intervals which are most likely to appear in a well-constructed melody, and if each of these intervals are taken seperately as a *c. f.* and its possible harmonic accompaniment worked out according to examples 344 to 362, the pupil will have acquired the ability to harmonize (with triads) any moderately difficult melody, for each two tones in such a melody will very probably be identical with some one of the intervals here practiced. The letters in the following table indicate to what harmonies the note underneath may belong. The triad-succession in the exercises to be worked out, is that from each of the three *fundamentals* over the first note to each of the three *fundamentals* over the second note, in each interval. For example using C B as the *cantus firmus*, the major triad of C may progress to the diminished triad of B, or to the major triad of G, or to the minor triad of E. The minor triad of A (C is its *third*) may then progress to the same, and finally the major triad of F, (C is its *fifth*) may make the same progressions also. In each of the progressions, the same formulæ are to be employed as heretofore, *viz:* $\begin{smallmatrix}5\\3\end{smallmatrix}\begin{smallmatrix}5\\3\end{smallmatrix}\begin{smallmatrix}5\\3\end{smallmatrix}\begin{smallmatrix}6\\3\end{smallmatrix}\begin{smallmatrix}6\\3\end{smallmatrix}\begin{smallmatrix}5\\3\end{smallmatrix}\begin{smallmatrix}6\\3\end{smallmatrix}\begin{smallmatrix}6\\3\end{smallmatrix}$, and such as cannot be accomplished without faulty voice-leadings are to be rejected.

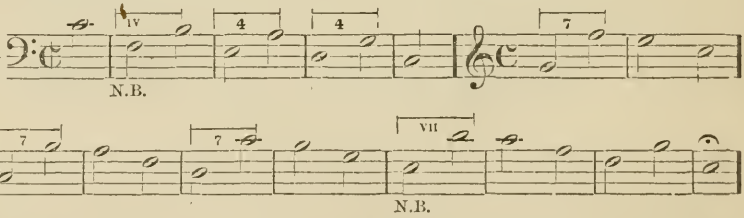
F	E	F	A	F	D	F	B°	F	C	F	C	F	B°	F	D	F	A	C	B°	B°	C.
A	G	A	C	A	F	A	D	A	E	A	E	A	D	A	F	A	C	E	D	D	E.
C	B°	C	E	C	A	C	F	C	G	C	G	C	F	C	A	C	E	G	F	F	G.

363.



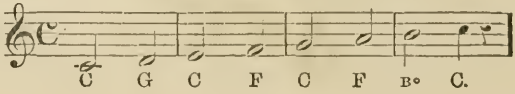
The major fourth and major seventh are not regarded as melodic intervals, and should never be made use of except where a sequence in the melody compels it, as for example:—

364.



The harmonic accompaniment to a major scale may now be attempted in the following simple manner. First write down the scale by itself, and place over each note the *fundamental* of the triad which may be chosen to accompany that note. These triads are to be chosen with due regard to *clearly indicating the key at the beginning and at the end*, and the securing of a flowing connection of harmonies between these two points, *e. g.*

365.

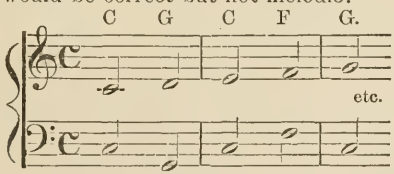


We commence here with the Tonic, Dominant and Tonic-triads (authentic close), which fixes the key as C major. The next tone (F) being the Sub-dominant, the Sub-dominant-triad (F, A, C), will very naturally accompany it. Upon the next tone (G) we might use the triad of G major, but in that case there would be no connecting tone with the preceding triad of F major. The triad of E minor, to which G belongs, would also have no connecting tone. The triad of C major again, best answers our purpose. The following tone being A, and the close of the passage approaching, the Sub-dominant-triad may be used to good advantage as part of the cadence. If the next tone (B) be reckoned as third in the triad of G major, we should again have two triads without a connecting tone (F major and G major), and the triad of E minor (B is its fifth) together with C major would not form a satisfactory close (see remarks on this point, page 82). It will be found most acceptable to use the diminished triad of B, which furnishes one connecting tone with the triad of F major. (see above, Ex. 365.)

REMARK.—The above cadence, though often used in former times at the *close* of a composition, does not possess falling inflection enough to be satisfactory at that place, in the present day. It is used now as a partial cadence only, indicative of the close of a phrase or section. It is used in that sense here, as will be seen by referring to the fully harmonized scale, example 371, page 141.

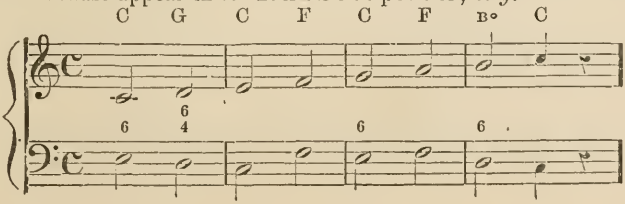
Having chosen the *harmonies* to be used, the next point will be to add the Bass. It is especially important that this voice, as well as the Soprano, shall be as melodic as possible, as these two voices are heard most prominently. For this reason it is not always best that the *fundamental* of the accord be the Bass, but rather the *third* sometimes, and occasionally the *fifth*. The following Bass to our scale would be correct but not melodic:—

366.



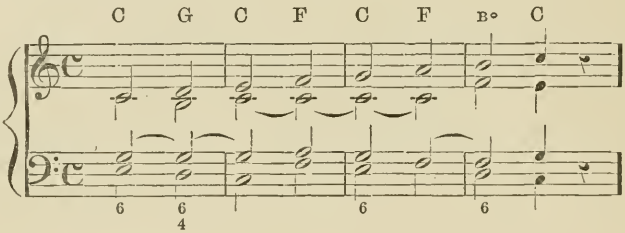
We can begin, if we choose, with a Third-sixth accord; this may be followed by the Fourth-Sixth position of the G major triad, and this by the Fundamental position of the C major triad. This secures a melodic Bass. Again, in the third measure, the Bass is more flowing if the C major triad occurs in its Third-Sixth position, instead of the Fundamental. In the last measure, the diminished triad must appear in its Third-Sixth position, *e. g.*

367.



The two principal voices having been written down, (this is decidedly the most practical way) the *inner* voices are next in order. It makes no material difference which is first attended to, as each is equally important, it only being necessary to write the first high or low enough to leave space for the other. Every effort should be made to secure as natural a flow for all the voices as possible, and when similar motion appears in the *outer* voices, cause at least one of the *inner* voices to remain stationary, or, better still, to progress in contrary motion. As we have already said, it is not altogether acceptable when all the voices rise or fall at the same time. We present the completed exercise in No. 368, calling attention to the melodic flow of the Bass, and the close connection of the harmonies.

368.

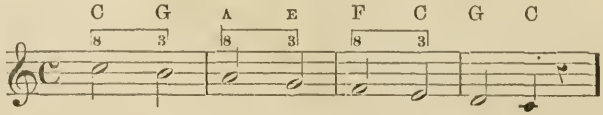


PASSING CHORD.

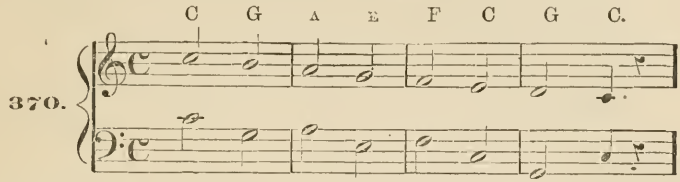
We have purposely introduced the Fourth-Sixth accord here (see first measure, Ex. 368) in order to show another way in which this chord may be used. We have hitherto used it as a *retardation* before another triad in its Fundamental position upon the same Bass, (see Complete Cadences, page 100). It had there almost the character of a dissonance and was treated with a, so to speak, resolution. It occurred there invariably upon an accented measural-division. In the above example, this chord appears as a Passing Chord. It occurs *unaccented*, as will always be the case in its character of passing chord, and the Bass must always be treated exactly like a *passing-note; i. e.*, it must be gained and left degree-wise. The other voices are to be treated as in any chord-connection.

In a similar manner we will now attempt to harmonize the descending major scale of C. Of the many ways in which this may be accomplished, we choose a sequence form, in which the Soprano of the first accord is the *octave*, and that of the second accord the *third*, and repeat this as many times as is practicable. The close must be effected with a satisfactory cadence, the authentic, for instance, *e. g.*

369.

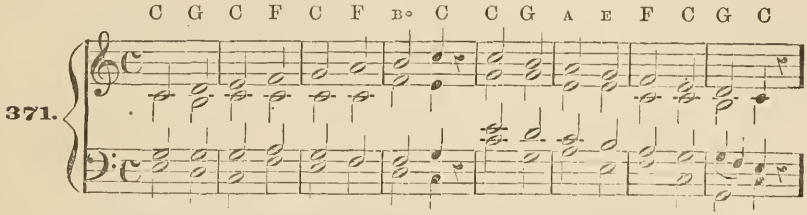


Having chosen the harmonies to accompany our *c. f.*, we proceed to the selection of the Bass. The succession of the *fundamentals* here is already sufficiently melodic and therefore answers our purpose, *e. g.*



The addition of the inner voices will offer no difficulty worthy of remark.

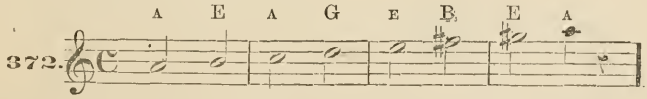
Example 371 presents the ascending and descending major scale, harmonized according to the foregoing explanations and examples.



HARMONIC ACCOMPANIMENT TO THE MINOR SCALE.

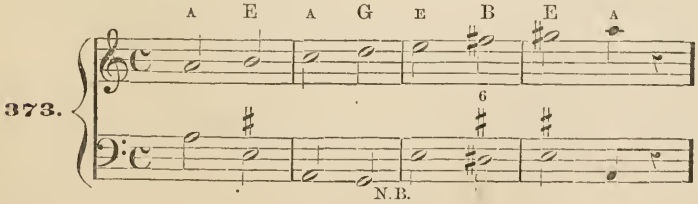
(3d form, see page 45).

Proceeding according to the directions given in connection with the major scale, we first write down the *c. f.* and choose the triads to appear, recording their *fundamental* letters above, *e. g.*



It should not be forgotten that the introductory harmonies ought to clearly indicate the key, and those toward and at the close are to leave us *at home; i. e.*, finally settled in the same key as that used at the beginning.

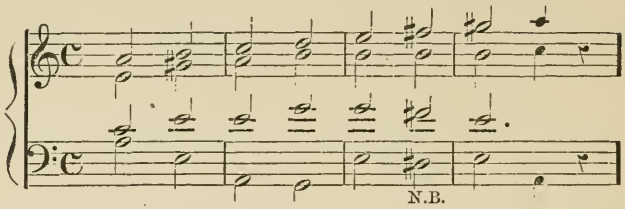
We next seek out a Bass which can appear in these chosen harmonies, *e. g.*



The spring at N.B., (G to E) is made in order to avoid exceeding the ordinary range of the voice.

The inner voices may now be added, as for example in No. 374:—

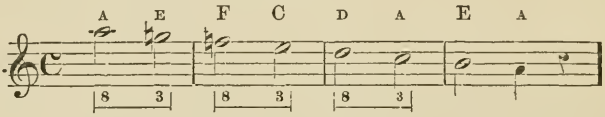
374.



The harmony at N.B., Ex. 374, gives occasion for remark. The tone F♯ in the *c. f.* cannot be used as the third of the Sub-dominant-triad (D), because a minor mode always demands that that triad shall be *minor*, whereas with F♯ as its *third*, the triad of D (D, F♯, A) would be major. We therefore use the major triad of B, of which F♯ is the *fifth*. This stands as Dominant-triad to the following triad of E major, and this last again as Dominant-triad to A minor.

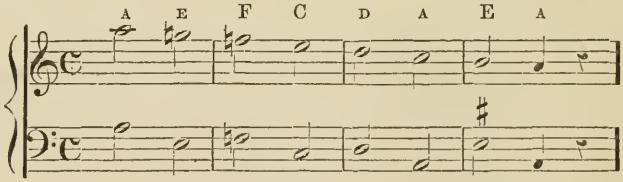
For the descending minor scale (3d form), the sequence form, used in the major scale, may be acceptably employed, *e. g.*

375.



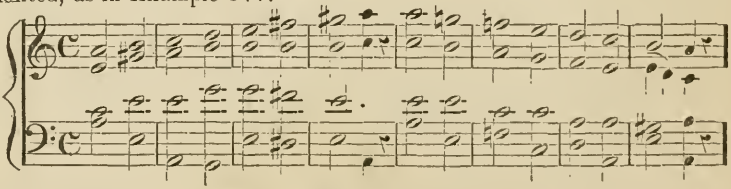
The *fundamentals* furnish a sufficiently melodic flow to form an agreeable Bass, thus:—

376.



The inner voices may now be filled out, and the ascending and descending scales united, as in Example 377:—

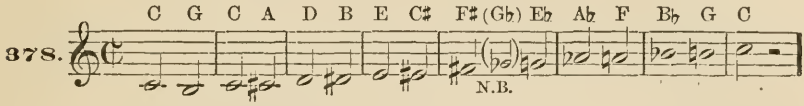
377.



It would be well for the pupil to attempt other harmonies upon the major and minor scales, and it is suggested that these scales, as here harmonized, be transposed upon the piano-forte, if not in writing, into different keys, as a ready knowledge of them will often prove of practical value.

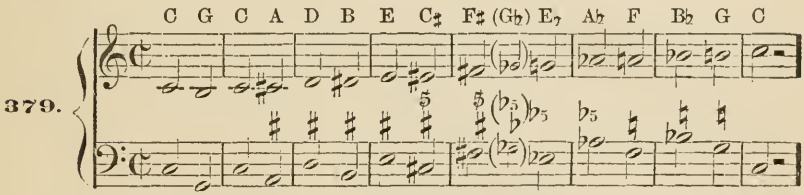
HARMONIC ACCOMPANIMENT TO THE CHROMATIC SCALE.

The so-called chromatic scale can also be easily harmonized by means of triads alone, if we consider the first of the given tones as *octave* in a major triad and the second tone as *third* in another major triad, perpetuating this sequence *ad libitum*. The *fundamentals* in that case will be according to the letters over our *c. f.* in the following example:—

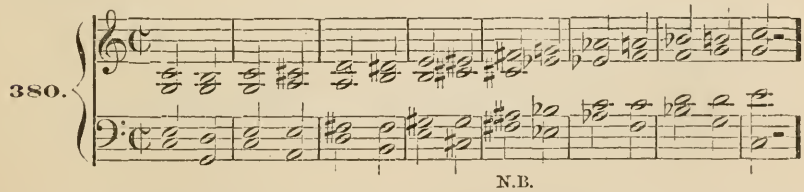


A chromatic scale extending from any tone to its octave, above or below, harmonized in the manner here selected, will be obliged to employ an *enharmonic change* at some point in the scale. We make use of it here at N. B. (Ex. 378) converting the F♯ triad into that of G♭. If this were not done, double and triple-sharps would necessarily soon appear, and, further, the *exact octave* of the starting-point, C♮, would never be reached. That *sound* would appear upon the staff as B♯.

The Bass is next to be added, *e. g.*



The object of the C and G triads, in the first measure, is to indicate the key, according to an observation already made. It is not absolutely necessary that the enharmonic change be indicated, as in the parenthesis in the above example. Thus, in the following example (380), this change will be self-understood, for certainly the triads of F♯ and E♭ can not succeed each other except through such a medium.

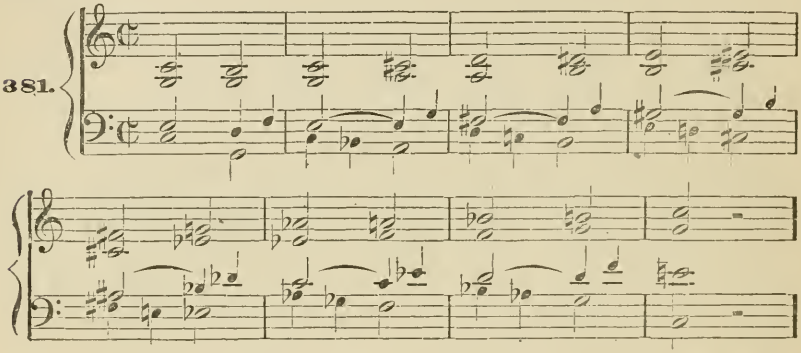


It is hardly necessary to add that the voice-leading, at N. B., where the enharmonic change occurs, oversteps the classical rule for chord-succession. The leading of the voices here is not natural, and while always easy of execution upon keyed instruments, and reasonably so upon instruments of other *genre*, this is not the case in vocal performances. The introduction of the enharmonic change

here is more intended for the instrumentalist than as a model to the vocal composer.

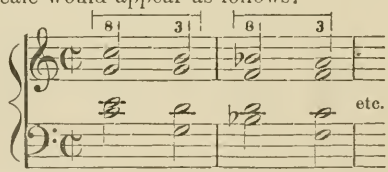
The above harmonic accompaniment to the chromatic scale may be embellished and the chords more smoothly connected at the same time, through the aid of a subsequent seventh (see Tenor in Ex. 381) and a passing note in the Bass, *e. g.*

381.



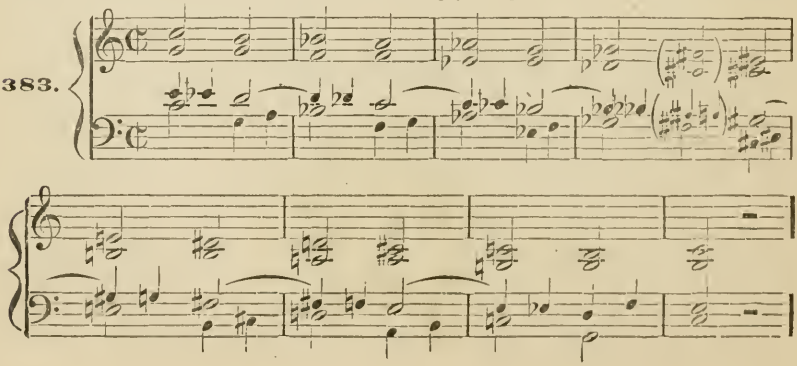
The descending chromatic scale may be harmonized in the same way as the ascending, *viz:* by regarding the first tone as *octave*, and the second tone as *third* in a succession of major triads. This sequence is to be perpetuated to the end, remembering the necessity of an enharmonic change at some point, so that the use of too many double-flats may be avoided. The simple triads in the descending scale would appear as follows:—

382.



Embellished, however, with passing-notes in the Bass and Tenor, the harmonies will succeed each other more flowingly, *e. g.*

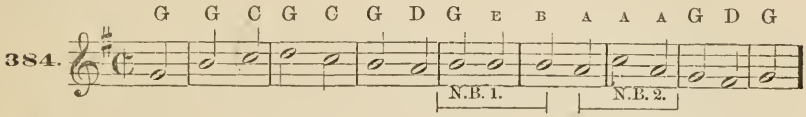
383.



HARMONIC ACCOMPANIMENT TO ANY GIVEN CANTUS FIRMUS.

It is now recommended that a *cantus firmus*, like the melody of a choral, be selected or composed and harmonized according to the process indicated in the foregoing pages.

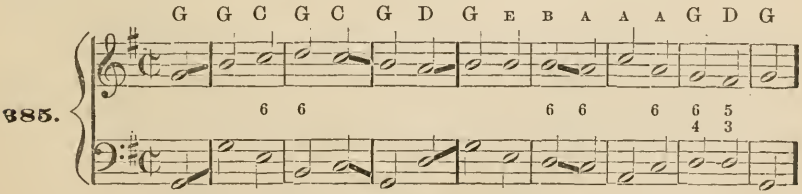
1. Choose such triads as can follow each other naturally upon the *c. f.* selected, recording their fundamentals above. (If the chord-successions upon a *c. f.* of two tones have been thoroughly worked out and comprehended, they will prove invaluable here in being able to determine just what chords may be employed), *e. g.*



Where the same tone is repeated several times (see N.B. 1), the monotony should be relieved by changes in the harmony.

If this is not practicable, then the position of one or more of the accompanying voices can be sometimes changed. At N.B. 2, we have used the same triad (A minor) three times in succession, but we shall see presently that any seeming monotony will be prevented by a change in the position of the voices. The key, at the beginning, is here indicated by the Tonic, Sub-dominant and Tonic-triads (G, C, G), the chord-succession used to form the Plagal Cadence. The key, at the end, is established through the triads of the Authentic Cadence (G, D, G).

2. Having chosen the ground-work of the accompaniment, the Bass is next to be worked out. Endeavor, by a judicious commingling of the Fundamental and the Third-Sixth position of the various triads, to secure a melodic Bass, and avoid the stiffness and monotony occasioned by a too frequent use of the *fundamental*, as Bass. The Fourth-Sixth accord is to be used only as a passing-chord (it must then occur *unaccented*) or in the cadence *(accented)* as heretofore explained. Example 385 presents the above *c. f.* with the addition of a Bass.

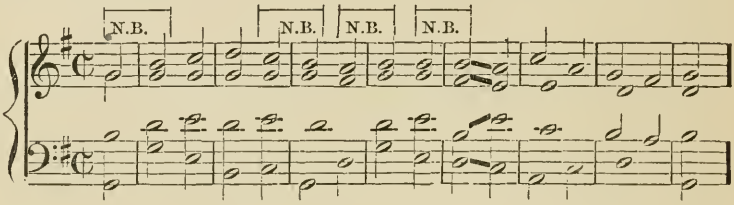


We call attention again to the *motion* of the voices. Inasmuch as the *outer* voices are heard most prominently, it is better, if practicable, that they move in contrary or oblique motion. With little exception this has been done in the above example. Wherever *similar* motion appears in the *outer* voices, the

inner voices should be so led as to counteract this. One or both of them may be led in contrary motion to the other voices (see 5th measure, Ex. 386), or, one or both may sustain their tones, thus creating oblique motion to the others (see N.B., Ex. 386). If the *c. f.* progresses *spring*-wise, it is advisable to cause the Bass to move by *degrees*.

3. The inner voices are finally to be added, and as melodically as the nature of the case will allow, *e. g.*

386.



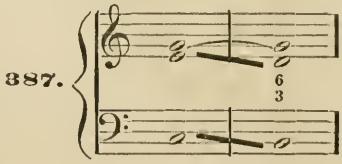
In harmonizing a given determined *c. f.*, we are not always obliged to retain connecting tones in the same voices, as we are allowed greater freedom in the voice-leading than in simple chord-successions, because the *melody* is the chief consideration here, while in the other case (chord-successions) the *harmony* or progression of all the voices as a whole, claimed the most attention. We can therefore omit the *fifth* in a Third-Fifth accord and double the Bass or the *third* in its stead; or, in a Third-Sixth accord, we can omit the *third* and double the Bass or *sixth* instead, whenever a better voice-leading can thereby be secured. Not more than one octave should intervene, as a general rule, between the Soprano and Alto, or Alto and Tenor. This remark does not apply to the Bass and Tenor. The above *c. f.* or others should now be used in the pupil's individual efforts in this direction. In lieu of an original *c. f.*, the melody of any one of the many well-known chorals will answer the purpose.

CHAPTER XXIII.

BOUND DISSONANCES. BOUND SUSPENSIONS. LIGATURE OR TIE. SYNCOPE.

If the accord of C major, in the following example, progresses to that of G major, the most natural voice-leading will be as presented here; *i. e.*, the G will be retained as upper voice; the middle voice (E) will fall a degree to D; and the Bass (C) will likewise fall a degree to B, *e. g.*

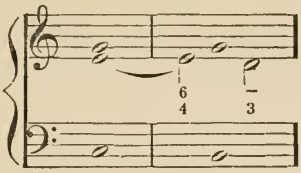
387.



REMARK.—The fourth voice is intentionally omitted but will be added in later examples.

In Example 388 we present the same chord-succession with a change in the treatment of one voice:—

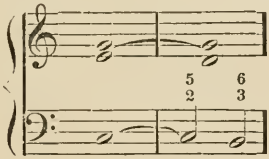
388.



The upper voice in the above example remains and the Bass falls a degree, as before, but the progression of the middle voice is *suspended*, inasmuch as it lingers for a time upon its tone in the first accord, and *after* the other voices have assumed their places in the new accord, it (the middle voice) moves to its proper place also (to D). The D is hereby *retarded* or *delayed* and the E forms what is called a Suspension before that tone (D). The first combination of tones, produced by the suspension of the E (B, E, G), presents as intervals a fourth and sixth; the figuring of the chord will therefore be $\frac{6}{4}$. The fourth forms a suspension before the third in the following chord, while the sixth remains. The above is not properly a *dissonant* suspension, but is nevertheless usable in the strictest style.

In connection with the same chord-succession as that in Example 387, we present another treatment of one of its voices, in Example 389.

389.



In this example, the upper two voices are treated as in Example 387, while the progression of the Bass (C) is *suspended* until *after* the other voices have assumed their places in the new accord, when it then moves to *its* destined place also (to B). Here arises a *dissonance*, at the beginning of the second measure, *viz:* between the Bass and middle voice (C and D). The resolution of the dissonant tone (C) takes place when the Bass falls to B, where the Third-Sixth accord first appears. The D stands as a second to the Bass (C) of the dissonant accord, and the G as fifth; the figuring is therefore $\frac{5}{2}$ and the chord of resolution $\frac{6}{3}$.

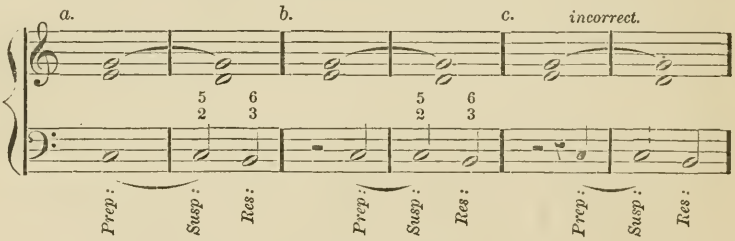
In whatever chord-succession bound dissonant suspensions are to be employed, the following rules are to be strictly observed. There are three leading points to be fastened in the mind, *viz:*

I. *Preparation.*
II. *Attack.*
III. *Resolution.*

I. PREPARATION.

That note which forms the *dissonance* or *suspension*, must have been *consonant* in the preceding accord. The *consonance* part of this bound note is termed the *preparation*, and the *dissonance* part is the *suspension* itself. For example, in No. 390, the note C is a consonant in the first accord, therefore, the note of *preparation;* it is then bound or suspended, and, through a progression of the other voices, becomes dissonant. In connection with the preparation of a suspension, it is to be remembered that *the preparation-note* (the consonance) *may be longer than the note of suspension* (the dissonance) as seen at *a*, Example 390, or, *the preparation and suspension may be of equal length* (see *b*, Ex. 390), but *the preparation-note must never be shorter than the note of suspension* (see Ex. 390 at *c*). This is done in order to oppose a counter-balance to the dissonance. The *entrance* of the preparation-note may take place accented or unaccented:—

390.

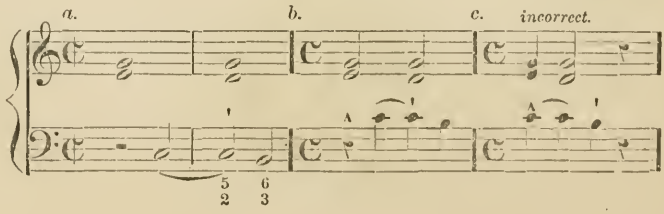


This rule for the Ligature or Tie is to be regarded throughout the entire science of music. The *first note* of a Tie must never be *shorter* than the second, it makes no difference whether the second note becomes dissonant or not. When an instance occurs, contrary to this rule, it is done either through caprice (see opening measures of Beethoven's Sonata in G major, Op. 31, No. 1) or through negligence. The reason for the prohibition is to be found in the limping, halting effect produced when the rule is disregarded.

II. ATTACK.

The attack of the dissonance or entrance of the suspension, (the point where, by the progression of the other voices, the consonant preparation-note turns to be dissonant) *must always take place upon an accented part of the measure*, (see the following example at *a* and *b*) *and never unaccented*, as at *c*.

391.



III. RESOLUTION.

This takes place when the bound dissonance falls* one diatonic degree (whole or half-step). Thus, the resolution in Example 391 takes place when the C (the bound dissonance) falls a half-step to B. The *entrance* of the note of resolution may be accented or unaccented at will.

In regard to the *resolution* of a dissonant suspension, we desire to say that as *a dissonance is but the melodic retardation of a consonance*, it is just as logically correct for that dissonance to resolve *upward* to a consonance as *downward*. The musical instinct awaits the resolution to a *consonance*. The *direction* in which that consonance is approached is of secondary importance. That the dissonance, like nearly everything else, more willingly falls than rises is granted. It was this observation which caused former theorists to allow only the degree-wise descending resolution, but that the ascending resolution is equally correct is proven by the just-mentioned principle. To illustrate, take for example the suspension of the second. In this suspension, the upper tone cannot fall nor the lower tone rise to the unison, because *a dissonance cannot appear as the retardation of a tone already present.* That would be a self-contradiction, *e. g.*

392. *not.* *not.*

If, however, the upper tone resolves melodically upward, or the lower tone downward, to the consonance of the third, or both to the consonance of the fourth, all the conditions necessary to a proper disposal of the dissonance will have been fulfilled, *e. g.*

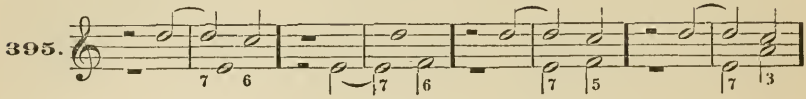
393. *correct.*

According to the same principle, the upper tone, in a suspension of the seventh, cannot rise (certain things condition an exception to this) nor the lower fall, *e. g.*

394. *sometimes permitted.* *never.*

* In romantic music, and especially in modern compositions, the suspended tone is frequently resolved upward. Further, in this freer style, not only consonances but also dissonances are used as a preparation to the suspension. The classical rule, as already given, prohibits the use of dissonances in this capacity. Mild deviators permit the use of consonances and the *free* dissonances (minor fifth, minor and diminished seventh) only, while the extremists make no distinction beyond such as shall be demanded by the character of the composition. He who takes advantage of these liberties is himself responsible for their proper application.

The proper resolution of this suspension takes place when the upper tone falls, or the lower rises, or both together, *e. g.*

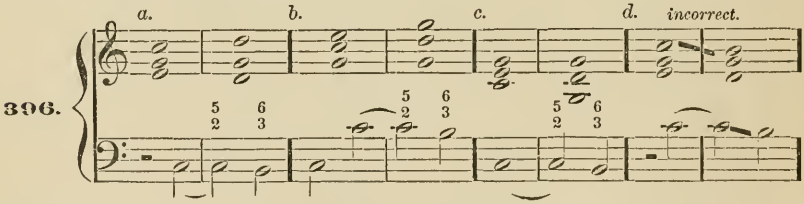


While a suspension may resolve itself, according to classical rules, a whole or half-step downward, those whose resolutions are upward are milder if they rise a half-step, only. The progression a whole step upward is harsher. Augmented intervals are generally most favorable to an ascending resolution.

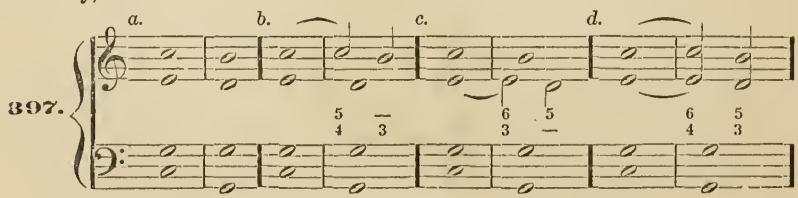
We now present Example 389 with the fourth voice added, the leading of which must be such as to double the *third* or *sixth* in the Third-Sixth accord (the chord of resolution) as at *a*, *b* or *c*, Example 396. The leading at *d* is wrong on account of the *parallel octaves* (a suspension does not remove the objection to this or any other fault) and, moreover, the principle set forth above is disregarded, a principle which we will now record in the form of a rule, *viz:*

Rule.—*That tone, to which a suspension resolves, must not appear in any other voice, above or below, previous to the regular resolution of the suspension itself.* (To this rule there are but two exceptions: one, the suspension of the *ninth* before the octave, and the other, that of the *seventh* before the octave. These will be presented in due time).

It will be seen that this rule is violated at *d* (396), for, previous to the resolution of the bound dissonance (C) to B, that note of resolution (B) appears in another voice (Sop.):—



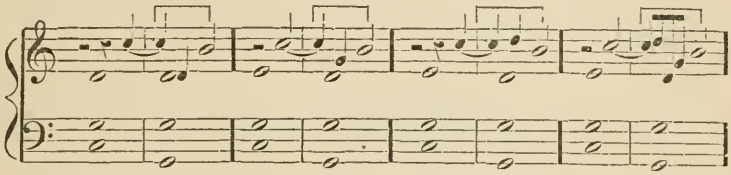
A Suspension, according to classic rules, may be applied to any voice in a chord-succession whose progression is a whole or half-step downward. Thus, in a chord-succession like that at *a*, Example 397, the Soprano may be suspended, as at *b*, or the Alto, as at *c*, or both voices may be suspended simultaneously, as at *d*.



No *dissonance* results at *c* or *d;* the retardation in both cases is therefore a *bound consonance.* The character of the Fourth-Sixth accord, however, as already many times remarked, is shown at *d* to be such as to almost demand a resolution. No suspension in the Tenor is possible here, because that voice makes no progression whatever; neither in the Bass, for that voice does not progress *degree*-wise.

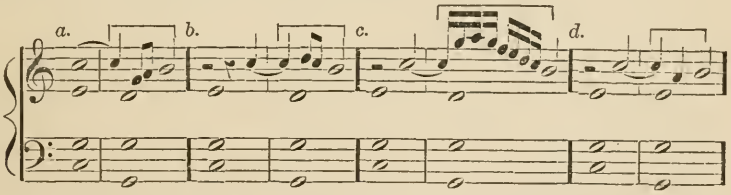
A bound dissonance, before making its regular resolution, can first spring to any or all of the tones belonging to the accord to which the dissonance finally goes. For instance, in a suspension like that at *b*, Example 397, the suspended voice (Soprano) may progress to any or all of the other tones in the triad of G major before making its regular resolution to B; the hearer each time awaits the proper resolution, not being disturbed by the temporary delay, *e. g.*

398.



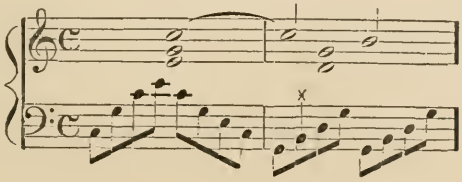
The first three of the following examples show that *passing notes* may intervene between the bound dissonance and its resolution. At *d*, Example 399, the bound dissonance (C) springs to a note (A) which is *not* an accord-tone of the G major triad (the chord of resolution). The tone A is here used as an appoggiatura to B (see page 77 on this point).

399.

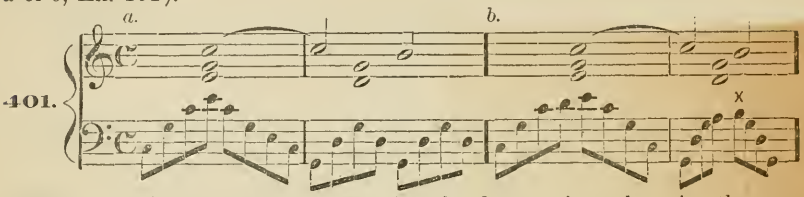


In the following examples, we wish to point out and correct a very prevalent fault, another violation of the rule set forth on page 150. The upper voices in Example 400, present one of the foregoing suspensions, while the Bass moves in a form of accompaniment or arpeggio. The fault is this, that the Bass makes use of the *retarded tone*, B (see ×), *previous* to the resolution of the suspension to that tone (see rule, page 150).

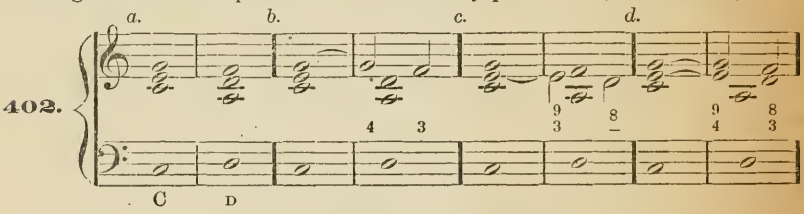
400.



The fault may be easily obviated by so leading the Bass as to avoid that tone (B), at least until the resolution of the suspended tone takes place (as at *a* or *b*, Ex. 401).

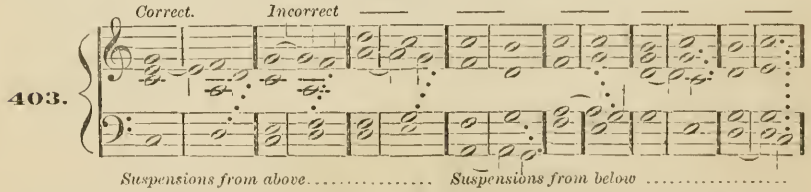


Here will follow suspensions upon other chord-successions, observing the same rule throughout. In the succession of the triads of C major and D minor (see *a*, Example 402), the Soprano may be suspended, as at *b*, or the Alto, as at *c*, or both Soprano and Alto, as at *d*. No suspension of the Tenor or Bass is practicable here, because the first-named springs (C—A) and the last would be obliged to resolve upward to a tone already present (D, in the Alto).



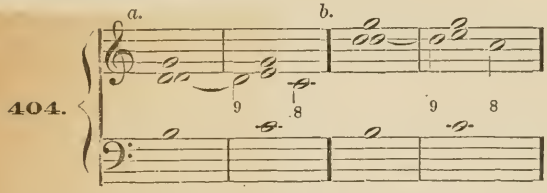
SUSPENSION OF THE NINTH.

At *c*, Example 402, the rule given on page 150 appears to be disregarded, inasmuch as the note of resolution (D) appears in the Bass previous to the resolution of the suspension to that tone. This is one of the exceptions alluded to in connection with that rule; it is the *Bass alone* which has the inherent power or weight to sustain such a progression. The above suspension (at *c*) is that of the *ninth* before the *octave;* it is therefore denominated Suspension of the Ninth; its figuring is 9 8, or 9 8. That no other voice is capable, like the Bass, of sustaining a suspension before its own tone, either above or below, will be seen by comparison of the examples in No. 403:—



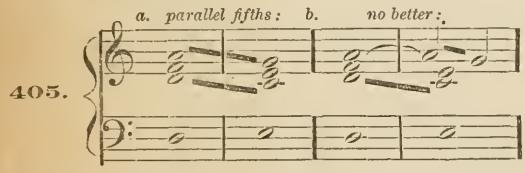
REMARK.—To explain away any misunderstanding in connection with the faulty Bass in Example 400, lest some may think that that is an instance of the suspension of the ninth, we would say that the broken-accord there *represents* the triad of G major, therefore B, being the *third* of the Bass (G), is really a *middle* voice. (See subject of broken-accords, page 76).

The suspension at *a*, Example 404, has been used by our best authorities on Counterpoint, bnt is to be understood and figured as a suspension of the ninth (see *b*), although the exact interval is a second, *e. g.*

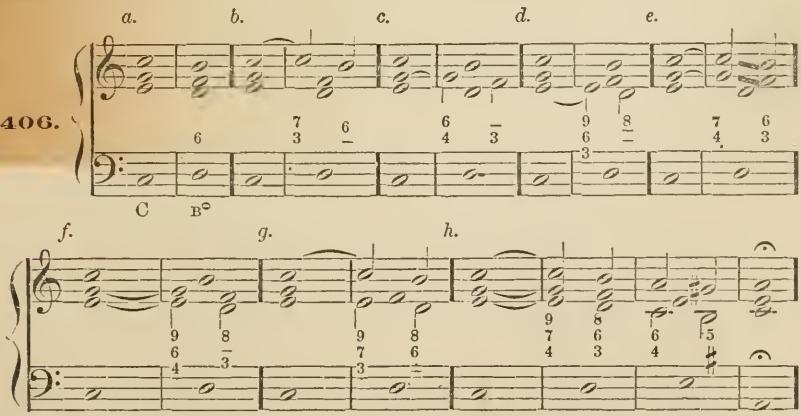


The following succession of the triads of D minor and C major is of course entirely forbidden on account of the parallel fifths (see *a*, Ex. 405). The fault is the same with the introduction of suspensions (see *b*), therefore the following italicized principle:

A suspension does not remove or palliate the effect of a faulty progression.



Upon the chord-succession at *a*, Example 406, we present suspensions upon each descending voice, first singly, as at *b*, *c* and *d*, then with two voices, as at *e*, *f* and *g*, and, finally, with three voices (at *h*), a *triple* suspension, with an added cadence.



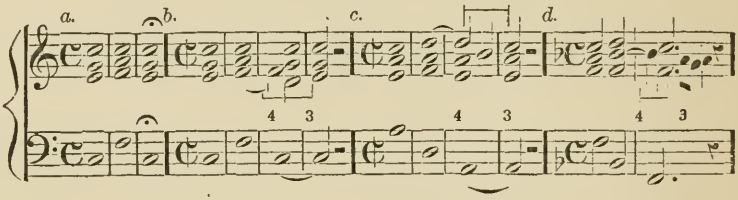
We have given, in the above example, all the suspensions possible to the chord-succession in question, in order to indicate what may be *attempted* by the pupil with other chord-successions, although not many will admit of so

manifold a development as this. Of the above suspensions, the one at *e* will always be the least acceptable, on account of the succession of fourths (see ☰). This is always crude where there are no other progressing voices, as here. The very same fourths, however, are seen in the second measure at *h*, but a progressing third voice (Tenor) entirely obviates the unpleasant effect alluded to.

Suspensions may also be effectively employed in Cadences.

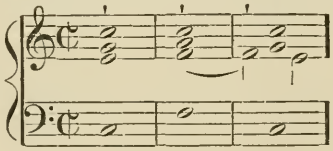
I. We present at *a*, Example 407, the Plagal Cadence to C major, and at *b*, *c* and *d*, examples of applied suspensions to this and the same cadence in A minor and F major, with different placing of the upper voices.

407.



The example at *b* could not end in the following manner, because, in the time here used (*alla breve* ¢), the close would take place unaccented, *e. g.*

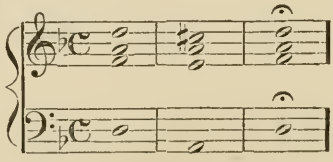
408.



For this reason the resolution of the suspension is delayed at *b*, Example 407, (by an *appoggiatura)* until the beginning of the following measure, where an accent is secured for the final chord. The example at *c*, No. 407, is also very similar. The example at *d* needs no explanation more than that the note of resolution (A) is embellished by one of its auxiliary tones (G).

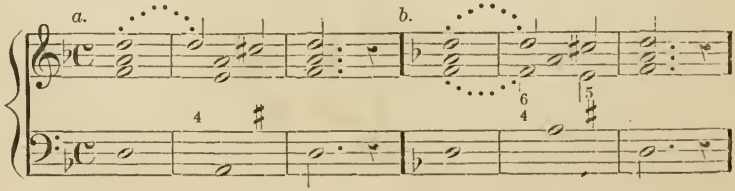
II. To the Authentic Cadence:—

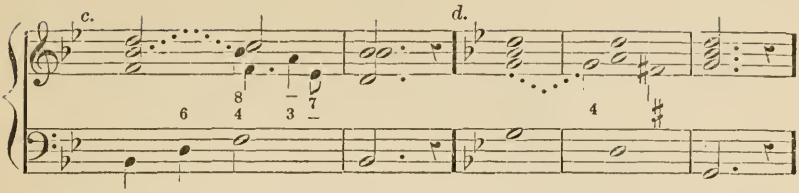
409.



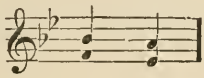
Supensions may be applied as in Ex. 410:—

410.



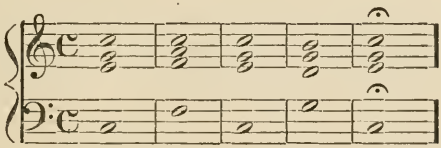


It is not obligatory that the suspension be bound. The simple *delay* in the *progression* of any voice, according to our given rules, produces a suspension, whether the tone be bound or not. The suspensions are indicated in the above examples by dotted lines. The progression of fourths, as for example:—

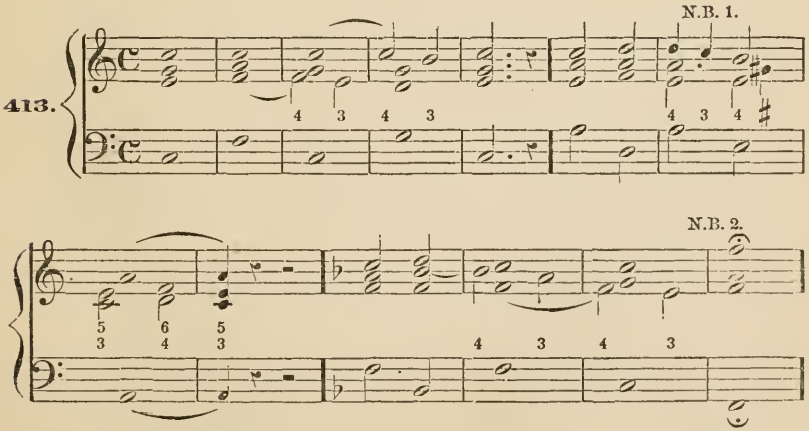
411. 

is improved by causing the F to move to E♭ *after* the B♭ goes to A, as seen in the Alto and Tenor at *c*, Example 410.

III. In the Complete Cadence:—

412. 

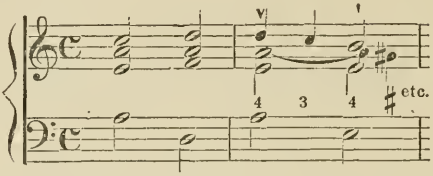
suspensions may be applied as, for example, in No. 413:—

413. 

At N.B. 1, Example 413, the D of the Soprano forms a suspension before C; the Alto (A) in the same measure, is a suspension before G♯, although

written in a different manner from that used heretofore. The example is more clearly expressed in No. 414:—

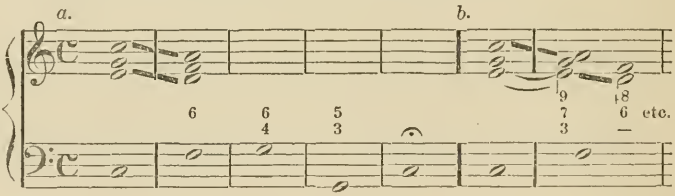
414.



The rules are all observed in both of the above suspensions; the *preparation* is *consonant*, and the *dissonance* begins upon an accented part of the measure in both instances, as, in the time here used (𝄵), an accent falls upon the first and third parts; the *resolutions* are also correct; *i. e.*, degree-wise downward. At N. B. 2, Example 413, we have taken advantage of a privilege already referred to, (page 102) in order to secure a firmer close than the ordinary rule for chord-connection would permit.

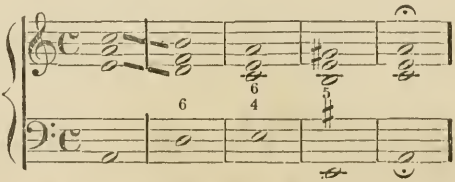
As has been several times stated, a Third-Sixth accord, instead of the Sub-dominant-triad, can appear upon the Sub-dominant; we remark now that suspensions can be applied thereto, provided the voices *fall* to this accord in a manner free from objection. In Example 415, at *a*, the entrance of the Third-Sixth accord is objectionable on account of the too perceptible fifths, as the chords are not connected. The application of one or more suspensions (*b*) will hardly better the progression (see this point on page 153).

415.

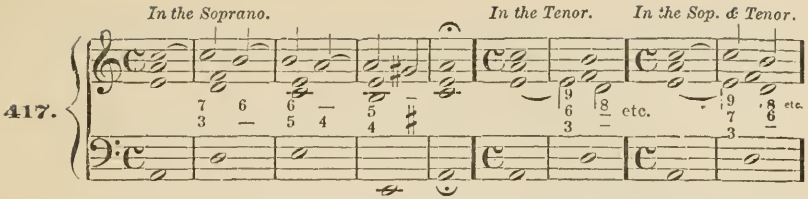


If the *third* of the Tonic-triad be given to the upper voice, an entrance of the Third-Sixth accord upon the Sub-dominant may be secured, in which two of the voices will fall degree-wise, *e. g.*

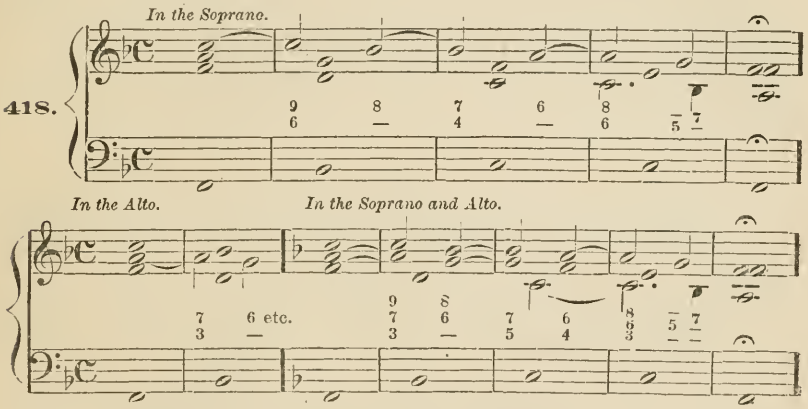
416.



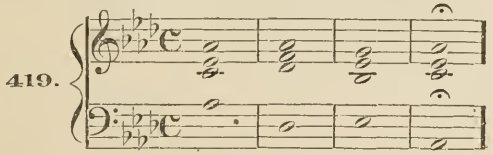
Upon these two, as well as upon those voices in the succeeding accords which fall degree-wise, suspensions may be employed, *e. g.*



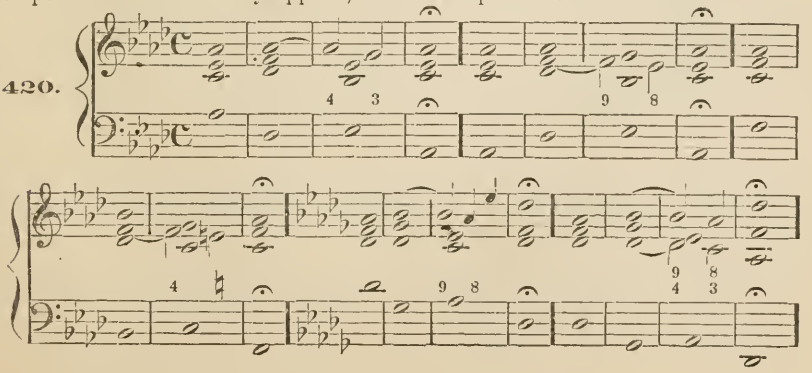
If the *fifth* of the Tonic-triad be given to the upper voice, another equally favorable entrance of the Third-Sixth accord upon the Sub-dominant is gained, as the Soprano and Alto fall degree-wise, admitting the application of single or double suspensions, *e. g*



To the following formula of the Complete Cadence:—

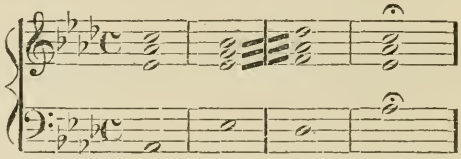


suspensions can be readily applied, as in Example 420:—



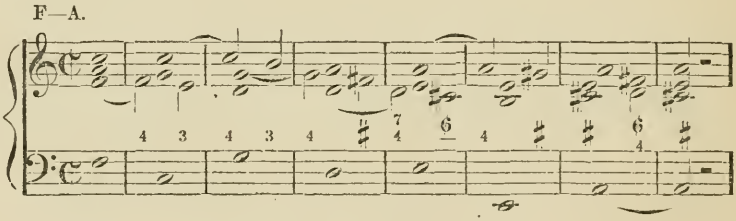
That formula, in which the Dominant-triad immediately precedes that of the Sub-dominant, does not allow of classical suspensions between those two chords, because none of the upper voices fall.

421.



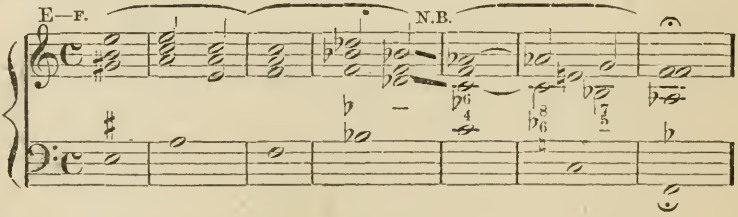
It will be found a most valuable practice here to repeat all or a part of the exercises in modulation given on pages 102 to 122, applying suspensions to such voices as fall degree-wise, in the manner that we have so copiously illustrated in the foregoing pages. We give below, a few examples of such modulations; for example, first from F major to A major, an elevation of four relative degrees, *e. g.*

422.



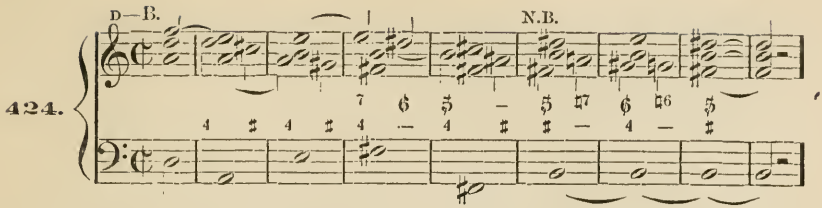
Second, from a major to a minor; for example, E major to F minor, a depression of eight relative degrees. It will be proper to remark here that in modulations by elevation, suspensions can be more frequently applied than in modulations by depression, on account of the greater frequency of degree-wise falling voices, *e. g.*

423.



Suspensions could be employed at N. B., Example 423, there being two voices which progress degree-wise downward. They were omitted in order to better preserve the symmetry of the rhythm (compare the sections). A double suspension is introduced in the cadence.

Third, from a minor to a major; for example, from D minor to B major, an elevation of six relative degrees, *e. g.*

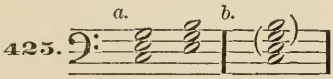


The cadence, in the last example, is extended by means of an organ-point, thereby securing a better rounded musical period than if the close took place at N. B. An example of modulations from minor to minor, with suspensions, might be given, but will scarcely be necessary after the foregoing; the pupil will only need the suggestion in order to accomplish it alone. At this point we leave the subject of Suspensions, to be taken up again at the proper time and reviewed in connection with other accords, including their use in the modern or romantic style of composition.

CHAPTER XXIV.

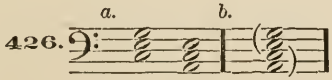
CHORDS OF THE SEVENTH.

If two triads which are related in the third, for example C major and E minor (see *a*, Ex. 425), are united in one combination of tones (*b*), a dissonant accord arises:—

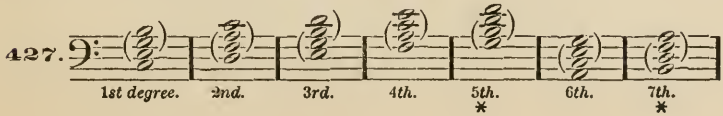


The intervals contained in this dissonant accord (*b*) are a *third, fifth* and *seventh;* consequently, the figuring in full will be $\frac{7}{3}$; the following are also used: $\frac{7}{3}$ or $\frac{7}{5}$ or 7.

Such combinations are called Chords of the Seventh, or, more briefly, Seventh accords. A Chord of the Seventh results from the union of any two triads which are related in the third, as for example C major and A minor (Ex. 426, *a* and *b*).

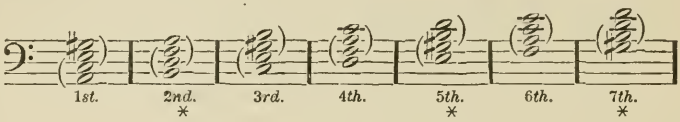


Further, a Chord of the Seventh can be formed upon every degree of the major or minor scale, thus:—



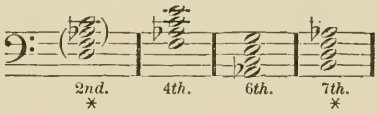
In the Normal scale of A minor, the Chords of the Seventh are precisely the same as those given in Example 427, beginning with the 6th (A). In the bolder minor mode (see page 44) there are four additional seventh accords, situated upon the first, third, fifth and seventh degrees, as follows:—

428.



Again, in the milder major mode, that in which the Sub-dominant-triad is minor, (in C major, F, A♭, C) we have another tone (A♭) which we may introduce into four of the Seventh accords in the mode of C major, *viz:* those upon the second, fourth, sixth and seventh degrees, thus:—

429.



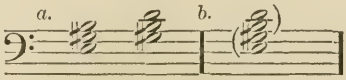
In some of these Seventh accords the dissonance is so harsh as to always require that the chord be *prepared; i. e.*, the *seventh* must appear as a *subsequent-seventh* or as a *bound dissonance.* Others, again, are of so mild a nature that they may enter *free; i. e.*, unprepared. These are such as contain a *diminished* triad. Of the above, those marked with an asterisk (*) contain a diminished triad, and are thereby allowed this privilege.

For our next exercises, we will make use of that Seventh accord located on the Dominant. It consists of the union of a major and diminished triad, its intervals being a *major third, major fifth* and *minor seventh.* This particular combination is denominated

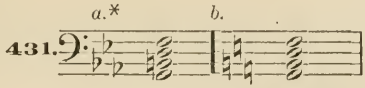
CHORD OF THE DOMINANT SEVENTH.

This accord is formed in the same manner in both major and minor modes, since the Dominant-triad in minor modes is generally major. In the mode of A minor, for example, the Chord of the Dominant Seventh consists of the union of the major triad of E and the diminished triad of G♯ (see *a* and *b*, Ex. 430).

430.



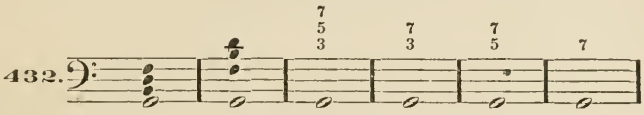
The Dominant Seventh accord in the mode of C minor consists of the union of the major triad G, B♮, D, and the diminished triad B♮, D, F, (Ex. 431, *a*). This is exactly the same as the Dominant Seventh accord in the mode of C major (*b*). We learn from this that this accord is precisely the same in *similar-named* modes, *e. g.*



Like all chords, *Chords of the Seventh* can be used in different positions. If all the tones stand third-wise one above the other, or are brought into that relation, it is the

FUNDAMENTAL POSITION.

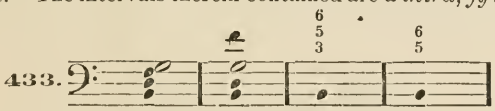
The lowest tone is then the *fundamental* of the chord. This same tone remains the *fundamental* in whatever position the chord may appear, the same as in triads. Example 432 exhibits the close and one open Fundamental position of the Dominant Seventh accord in C major, the whole notes indicating the *fundamental*, and the figures, the mode of abbreviating the chord.



When the original *third* (the *third* of the *fundamental*) appears as the Bass or lowest tone, there arises the

FIFTH-SIXTH POSITION OF THE CHORD OF THE SEVENTH.

It is also called *Chord of the Fifth and Sixth*, or, still more briefly, *Fifth-Sixth accord*. The intervals therein contained are a *third*, *fifth* and *sixth*, *e. g.*

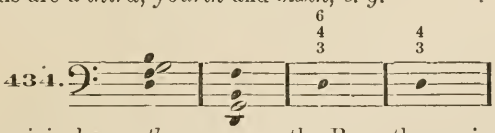


When the original *fifth* appears as the Bass, there arises the

THIRD-FOURTH POSITION OF THE CHORD OF THE SEVENTH.

(CHORD OF THE THIRD AND FOURTH, OR THIRD-FOURTH ACCORD.)

Its intervals are a *third*, *fourth* and *sixth*, *e. g.*

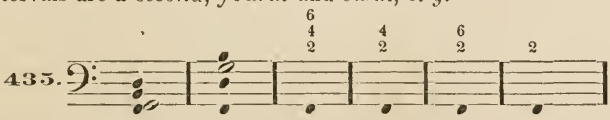


When the original *seventh* appears as the Bass, there arises the

POSITION OF THE SECOND OF THE CHORD OF THE SEVENTH.

(CHORD OF THE SECOND, OR SECOND ACCORD.)

Its intervals are a *second*, *fourth* and *sixth*, *e. g.*



* This and many future examples, where we have used only one staff, will *sound* better if sung or played an octave higher. For the sake of greater ease in reading the examples, we have endeavored, when nothing was thereby sacrificed, to avoid too frequent use of leger lines and spaces

As in the character of every dissonant accord, so also in Chords of the Seventh there is an inherent striving toward a point of rest; *i. e.*, toward a consonant triad. The progression of the chords under present consideration to such a point of rest is termed,

RESOLUTION OF THE CHORD OF THE SEVENTH.

Every Seventh accord has several different resolutions (progressions to different triads), the *primary* or principal being that in which the *fundamental* falls a *major fifth*, while the other voices (the original *third*, *fifth* and *seventh*) progrees to the tones forming a consonant triad upon this new tone.

RESOLUTION OF THE DOMINANT SEVENTH ACCORD.

The chief resolution of this particular Chord of the Seventh is to the Tonic-triad of that major or minor key to which its *fundamental*, as Dominant, belongs.

The primary or chief resolution of the Dominant Seventh accord G, B, D, F, is to the Tonic-triad of C major (C, E, G) or C minor (C, E♭, G). The leading of each voice to the triad of C major, for example, will be as follows:—

1. THE FUNDAMENTAL.

We have always connected chord-successions by retaining similar tones in the same voices. The same may be done here, as G, the *fundamental* of this Dominant Seventh accord, is common also to the triad of C major, thus:—

436.

2. THE SEVENTH OR DISSONANCE.

After the *fundamental*, the *seventh* is the next voice to be attended to. A *dissonance* always anticipates or creates the expectancy of a *consonance*. This expectancy is satisfied when the *dissonance resolves* to the *consonance*. In order to secure the highest effect for this resolution, the *consonance* or note of resolution, must be a tone not found in any voice of the chord to which the dissonance belonged, or, in other words, a tone which has been heard *with the dissonance* cannot be effectively used immediately afterwards as the *resolution* of that dissonance. The *anticipative* character of the dissonance would be destroyed were this natural law disregarded.

It will be seen here, therefore, that the *seventh* (F, the dissonance in the Seventh accord) cannot be resolved upward to G in the C major triad, as that tone (G) has been heard *with* the dissonance, just mentioned, (see dotted line in Ex. 437).

437.

Being obliged to reject this resolution of the seventh, we next try its downward progression to another tone in the chord of resolution, *viz:* to E, as in Example 438:—

438.

The tone E, not having been heard *with* the dissonance, and being a member of the triad of resolution (C, E, G), can therefore serve acceptably as the resolution to that dissonance. We are now enabled to establish the following rule:—

In the primary or principal resolution of each and every chord of the seventh, the original seventh, in whatever position the chord may be placed, resolves a diatonic degree downward (whole or half-step).

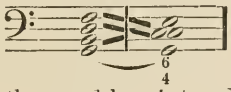
3. THE THIRD.

The *third* in a Dominant Seventh accord is always the *leading-tone* in that mode. Its best progression is to the Tonic as usual, therefore in this case, B will progress to C, *e. g.*

439.

4. THE FIFTH.

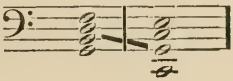
The last tone, (D) the *fifth*, could if necessary move upward to E. That would double the *third* of the chord of resolution, as the *seventh* (F) also resolves to E. It is better, as we have already remarked, to double the *Tonic*, that tone being the foundation of the chord. Consequently, we resolve the fifth (D) downward to the Tonic (C), *e. g.*

440. 

The resolution of the Seventh accord here is to a Fourth-Sixth accord, which is not so satisfactory as might be wished, on account of the dependence of that chord. To secure a firmer foundation for the chord of resolution, the Bass (G) of the Seventh accord, not being dissonant or requiring any determined progression, can move freely to the *fundamental* (C) of that chord of resolution, as in Ex. 441:—

441.

In the last example, the *fundamental* (C) of the chord of resolution appears three times, the *third* once, while the *fifth* is omitted. When the *leading-tone* appears as a *middle* voice, it is privileged to make an irregular progression downward to the *fifth* of the chord of resolution, in order to give that chord greater fullness, *e. g.*

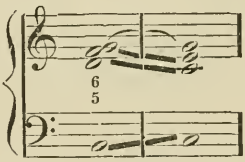
442. 

If the *leading-tone* lies in an *outer* voice, its progression, on account of its prominence, must take place regularly to the Tonic (see Ex's. 443 and 444), except in rare cases where a *sequence* might condition a different leading.

The resolution of the Seventh accord in its Fundamental position having been so amply explained, the resolution of its other positions will offer no especial difficulty since the same directions are to be observed in the leading of each individual voice.

RESOLUTION OF THE FIFTH-SIXTH ACCORD.

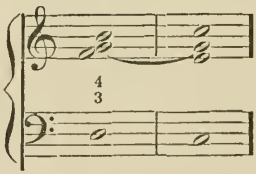
443.



The *fundamental* (see Ex. 443) may be bound; the original *seventh* (F) cannot resolve upward to G, because that tone has already been heard with the dissonance, it must, therefore, fall to E; the Bass (B) or original *third*, being the leading-tone and occurring in an outer voice, must progress regularly to the Tonic; the D (original *fifth*) falls best to C, thereby doubling the *fundamental* of the chord of resolution.

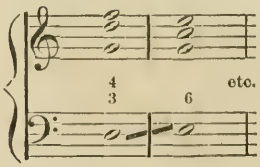
RESOLUTION OF THE THIRD-FOURTH ACCORD.

444.



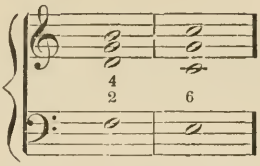
The *fundamental* (G, see Ex. 444) may be retained in the same voice; the original *seventh* (F) falls to E; the original *third* (B, the leading-tone in an outer voice) rises to the Tonic, and the original *fifth* (D) as Bass, falls best to the Tonic, as before. Cases often occur, however, in which the *fifth* in a Seventh accord is led upward, *e. g.*

445.



RESOLUTION OF THE CHORD OF THE SECOND

446.

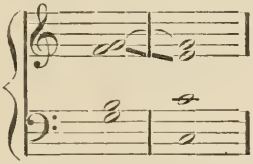


It is to be remarked that as the original *seventh* always appears as Bass of the Chord of the Second, its primary resolution is invariably to a Third-Sixth accord.

OMISSION OF TONES IN CHORDS OF THE SEVENTH.

The *fifth* can be omitted with the least detriment to the chord, the *fundamental* being usually doubled in its stead (see Ex. 447). The *third* can be rarely omitted, and the *fundamental* or *seventh* never, for the chord would then become a simple *triad.*

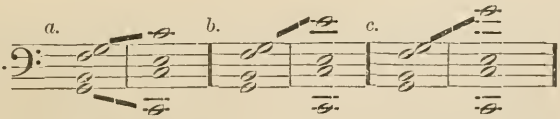
447.



We see still more clearly, in Example 447, that the *seventh* (F) could not resolve upward to G on account of that tone being already occupied. It must therefore fall to E.

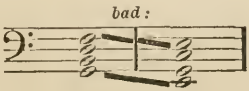
If the *fundamental* of a Seventh accord is doubled in an upper voice, its progression to the chord of resolution is freest of all the voices, (see *a, b, c,* Ex. 448).

448.



The *fundamental* as Bass, however, has not so manifold a privilege. For example, the following would not be acceptable on account of the too perceptible octaves:—

449.



CHAPTER XXV.

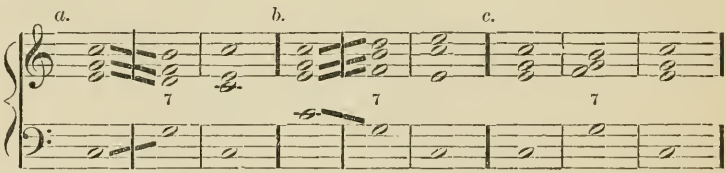
CHORD OF THE DOMINANT SEVENTH CONTINUED. ITS ENTRANCE AND RESOLUTION AFTER THE TONIC-TRIAD OF THE SAME MODE.

I. ENTRANCE OF THE FUNDAMENTAL POSITION.

The Chord of the Dominant Seventh can always enter *free; i. e.*, spring or degree-wise. Faulty progressions are of course to be avoided, and an endeavor made to secure as melodic a leading for each voice as possible.

In No. 450 we present examples of the entrance of this chord, in its Fundamental position, after the Tonic-triad, the placing of the voices in the triad being that in which the *octave* is given to the Soprano. The resolution of the Seventh accord is also added.

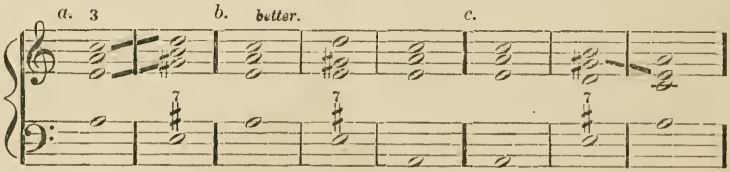
450.



Attention should be directed to the motion of the voices; cause at least one voice to move in contrary motion, to the others, especially where there is no connecting tone (*a* and *b*, Ex. 450). At *a*, the *fifth* in the chord of resolution is omitted because the B, as leading-tone in an outer voice, must rise to the Tonic, and the *seventh* (F) necessarily falls to E. The same thing happens at *b*, although it is not so necessary for the leading-tone in that example to resolve to the Tonic, occurring as it does, in a middle voice. At *c*, the *fifth* in the Seventh accord is omitted, the *fundamental* being doubled instead, thereby making the chord of resolution complete.

In the following examples (451) the Soprano of the Tonic-triad has the *third:*—

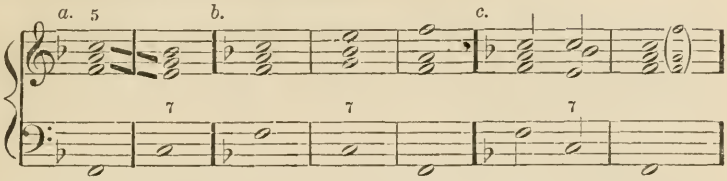
451.



The entrance of the Seventh accord at *a*, Example 451, is not very good, although sometimes used. That at *b* is better. At *c*, the leading-tone (G♯) appearing as a middle voice, can fall to the *fifth* in the chord of resolution for the sake of greater fullness.

Example 452 shows the entrance of a Dominant Seventh accord after the Tonic-triad with the *fifth* in the Soprano.

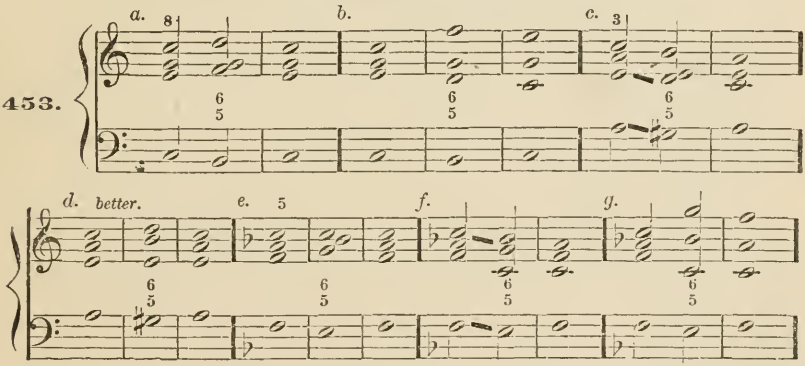
452.



Although the entrance at *a* is often used, those at *b* and *c* are to be regarded better. At *c*, the chord in parenthesis may be used, should a firmer close be desired. In the foregoing, as well as in the following examples, it will be found useful practice to place the voices of the Tonic-triad in *open* position and then effect the entrance of the Dominant Seventh accord.

ENTRANCE OF THE FIFTH-SIXTH POSITION OF A DOMINANT SEVENTH ACCORD AFTER THE TONIC-TRIAD.

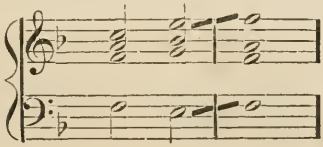
453.



Though used, the examples at *c* and *f* are not entirely unobjectionable, for the reason that all the voices move in similar motion, in addition to the succession of fifths, which latter are usually acceptable on account of the second one being a *minor* fifth. A better entrance is seen at *d*, *e* and *g*.

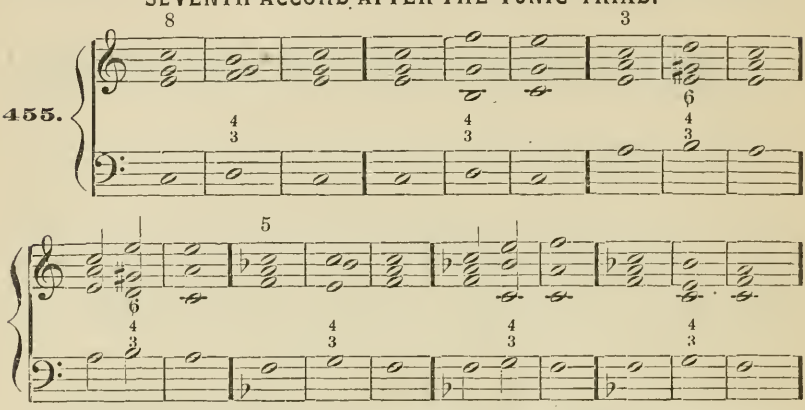
As the Bass of this position of the Dominant Seventh accord is always the *leading-tone*, it follows that that voice cannot be doubled, as in Example 454. If it were doubled, open octaves would necessarily result, for the leading-tone, as such, has only one progression,—that to the Tonic:—

454.



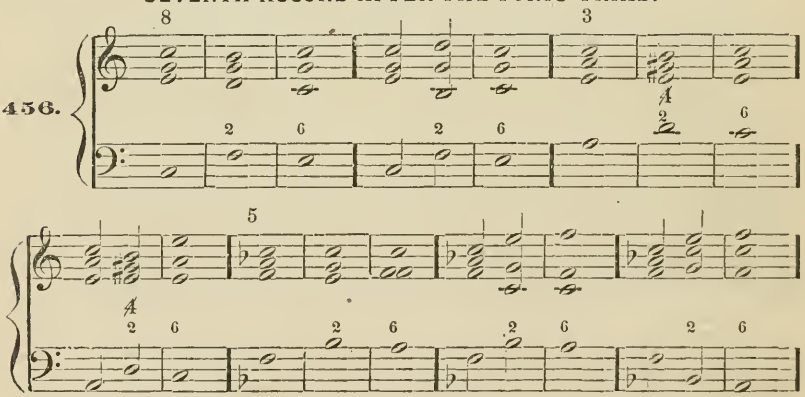
ENTRANCE OF THE THIRD-FOURTH POSITION OF THE DOMINANT-SEVENTH ACCORD AFTER THE TONIC-TRIAD.

455.



ENTRANCE OF THE POSITION OF THE SECOND OF THE DOMINANT-SEVENTH ACCORD AFTER THE TONIC-TRIAD.

456.



APPLICATION OF SUSPENSIONS IN CONNECTION WITH THE DOMINANT SEVENTH ACCORD.

A suspension applied to the *entrance* of the Dominant Seventh accord after a triad must observe all the rules already given (see page 147).

I. *The note of preparation must be consonant and as long or longer than the dissonance.*

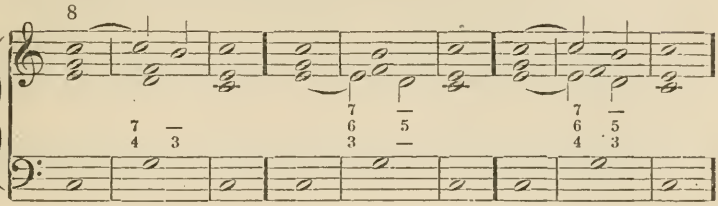
II. *The attack of the dissonance must be accented.*

III. *The resolution of the dissonance must be degree-wise downward.*

In No. 457 we present a few examples of suspensions applied to the *entrance* of the Fundamental position of the Dominant Seventh accord after the triad

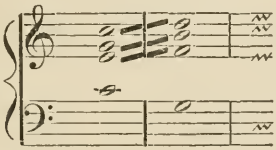
of C major. Upon every voice which falls degree-wise in this entrance, the application of suspensions may be effected, *e. g.*

457.

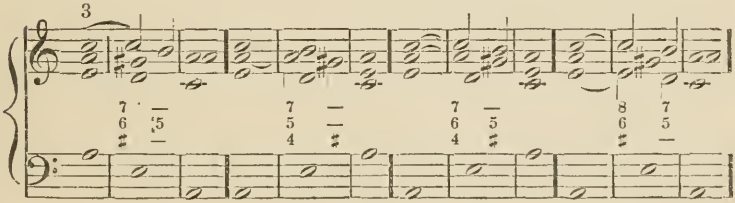


As the entrance of the Seventh accord in Example 458, takes place with ascending voices, it follows that classical suspensions cannot be applied:—

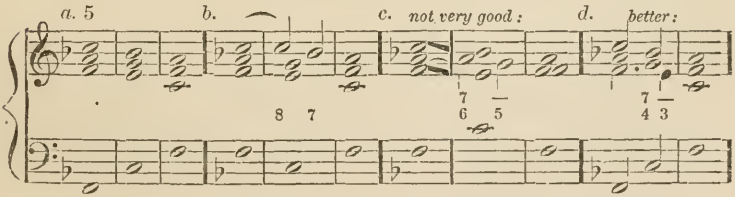
458.



459.

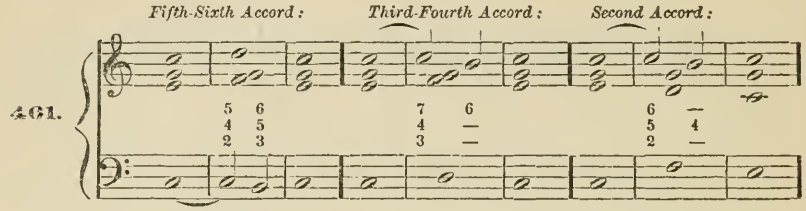


460.

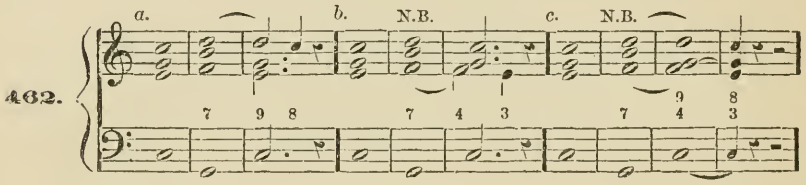


At *b*, Example 460, the C does not become dissonant by being bound, therefore no resolution is necessary. The B♭ is only a subsequent-seventh, and the example can not be regarded as a suspension. We understand by *suspension* a tone which, by becoming *dissonant*, determines for itself a certain fixed *progression* or *resolution*. On the contrary, a bound or retarded tone (as at *b*) which remains *consonant*, can spring to any other consonance or progress degree-wise in either direction. The example at *c* is rather objectionable on account of the prominence of the progression of fifths. The example at *d* is better.

A few examples of suspensions upon the *entrance* of the Dominant-Seventh accord in its other positions are seen in No. 461.

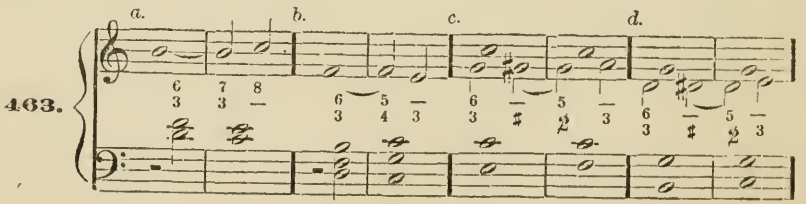


APPLICATION OF SUSPENSIONS IN THE RESOLUTION OF THE SEVENTH ACCORD.



In the above examples (*b* and *c*) the suspensions at N.B., violate the rule which says that the *note of preparation* must be *consonant*, as it will be seen here that the *seventh* (the *dissonance*) is used as the note of preparation. In the modern or romantic style of composition, all dissonances, under proper conditions, especially those; which, on account of their mildness, are allowed to enter *free*, may be used as notes of preparation to suspensions.*

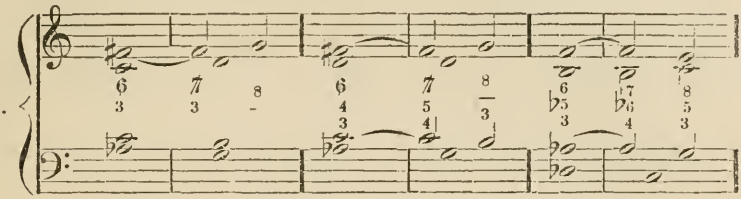
* According to this, not only the above, but the following examples also are acceptable.



In Example 463, the *fundamental* (at *a*) and the *fifth* (at *b*) in the diminished triad of B are used as *notes of preparation* in suspensions. At *c* and *d*, the original *fifth* in the augmented triads (C, E, G♯ and G, B, D♯) is used in the same capacity, and, like most augmented intervals, it is resolved upward. So also in the Chord of the Augmented Sixth, Chord of the Third, Fourth and Augmented Sixth, and Chord of the

Fifth and Augmented Sixth, (see pages 127–8), the degree-wise progressing voices may serve as notes of preparation to suspensions, according to this modern license, *e. g.*

464.

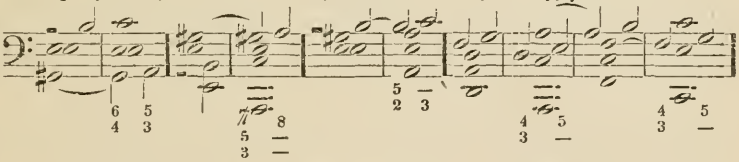


It will also be proper at this point to add examples of various other suspensions which are characteristic of the modern or romantic style of composition. We allude to those whose resolution take place upward, also to double suspensions with a simultaneous ascending and descending resolution.

SUSPENSIONS WITH ASCENDING RESOLUTION.

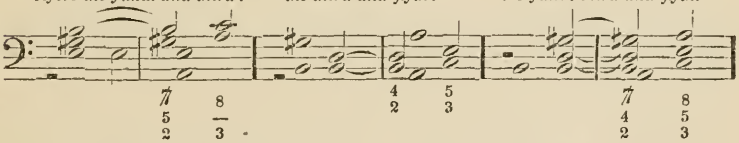
Susp. before the fundamental: *before the third:* *before the fifth:*

465.



before the fund. and third: *the third and fifth:* *the fund. third and fifth.*

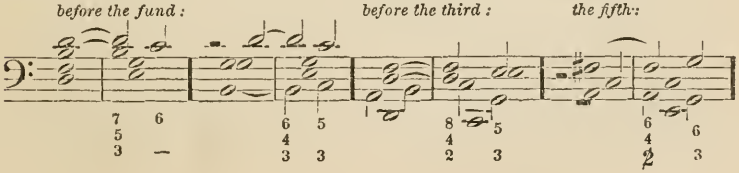
466.



SUSPENSIONS WITH SIMULTANEOUS ASCENDING AND DESCENDING RESOLUTION.

before the fund: *before the third:* *the fifth:*

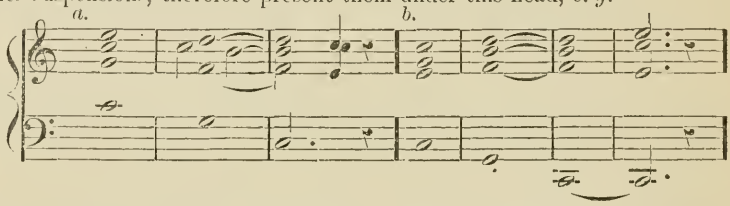
467.



Through the adoption into the practical science of Harmony of the above and similar suspensions, a thing which may be unhesitatingly done, inasmuch as they enter and progress as regular dissonance formations, we make a long stride forward in clearness, comprehensiveness and freedom; for, not only all former-used harmonies, but even the most remarkable combinations and chord-successions of our modern music find herein their explanation and vindication. It discovers to the intelligent composer an almost inexhaustible mine of new harmonies and successions, establishing theoretically at the same time the natural limits of all the explanable and reasonable dissonances which it is possible to form.

The following examples exhibit *triple* suspensions in connection with the resolution of the Seventh accord. At *a*, one of the suspensions is resolved upward (B to C), and at *b*, both D and B are resolved upward. These are the exceptions alluded to in connection with the rule on page 150 (the suspension of the seventh and ninth before the octave). Both of these suspensions are to be found in classical compositions, but are termed by some theorists, *Anticipation;** *i. e.*, one part of the chord (the Bass, here) appears before the others, thus *anticipating* what finally occurs. We see no objection to calling these examples suspensions, therefore present them under this head, *e. g.*

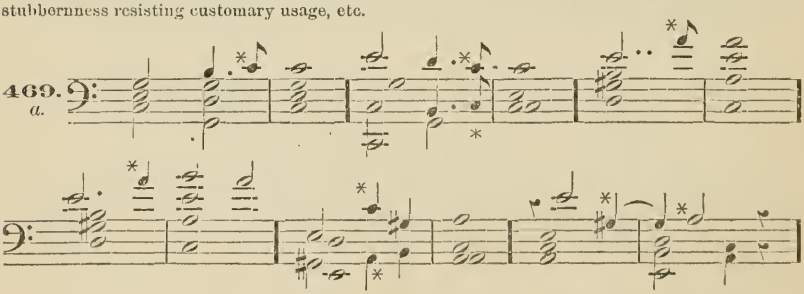
468.



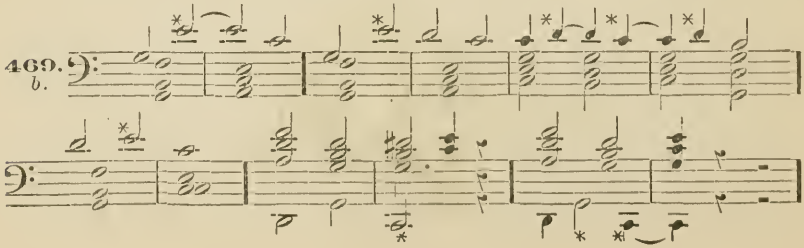
Similar suspensions can be employed upon the *entrance* and *resolution* of most Seventh accords of other construction than the one used in this chapter, provided always that the same conditions are present. The work of the pupil at this point should be to place the Tonic-triad of any chosen key in its open

*ANTICIPATION.—In a consonant or dissonant accord there sometimes appear one or more foreign tones which acquire an intelligible harmonic status only in the chord immediately following. Such a procedure is termed Anticipation, inasmuch as one or more voices *anticipate* the tones of, or assume their places in the new harmony before we expect the entire chord, (see * in Ex. 469). Their entrance and progression is degree or spring-wise at will. Some of the following examples are no longer strange, while others might find their vindication only in the peculiar expression or voicing sought after in each individual case, such as, for example, passion dominating reason, or stubbornness resisting customary usage, etc.

469. a.



469. b.



and close positions, alternating between the *third*, *fifth* and *octave* as *upper* voice, and then effect the *entrance* of the Dominant-Seventh accord of that key, with suspensions applied to any voice or voices admitting it. Suspensions may afterward be applied to the *resolution* of this Dominant Seventh accord. Practice in writing and playing these examples in different keys is to be thoroughly pursued.

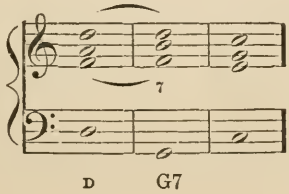
CHAPTER XXVI.

ENTRANCE OF THE DOMINANT SEVENTH ACCORD AFTER OTHER TRIADS COMMON TO THE SAME MODE.

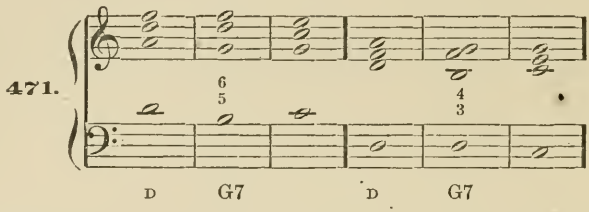
Thus far, we have only shown in what manner the Dominant Seventh accord can enter after the Tonic-triad of the same mode. Inasmuch as this chord can enter free; *i. e.*, spring or degree-wise, it can also enter after every other triad in the same mode, as we shall see in the following examples. For the sake of brevity, we shall present some of the most important examples only, leaving the pupil to further develope the subject by different placing of the voices, and practice in different keys.

Having already made use of the Tonic-triad (C major) we will commence here with the entrance of the Dominant Seventh accord, in its Fundamental position, after the triad upon the *second degree* in the mode of C major,—the triad of D minor (Ex. 470). The mechanical process is the same as in triad-succession: after the position and placing of the voices of the first accord have been determined and written down, the Bass of the Seventh accord should next be added; then, of the remaining voices, write down such as are to be retained, and, finally, lead the progressing voices to the nearest tones yet necessary to fill out the new accord. It is not to be expected that the pursuance of this simple mechanical rule will always prevent faulty voice-leadings, but it will be found to diminish the liability to faults, and the difficulty of chord-succession in general.

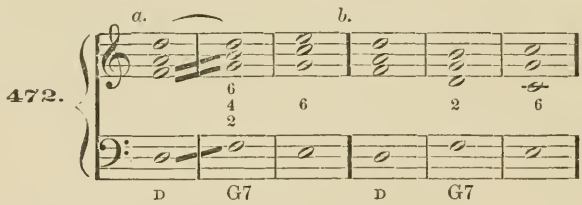
470.



Examples of the entrance of the Fifth-Sixth and Third-Fourth accords after the same triad (D minor) are to be seen in No. 471.

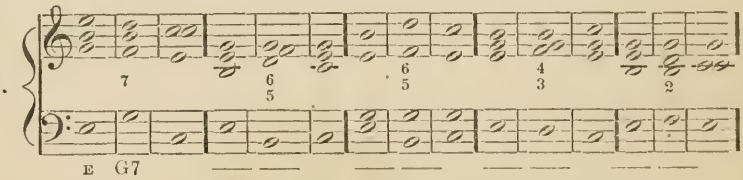


The entrance of the Second accord after D minor, as at *a*, Example 472, is not to be recommended, although the process above given is fully carried out. The reason for the bad effect is to be found in the fact that the dissonances (F, G and F, B) are *approached in similar motion.* This should be avoided, where practicable, in order to secure a purer harmonic structure. Contrary motion is the best means thereto, as will be seen at *b*, where the succession is entirely acceptable, although no connecting tone is present, *e. g.*



ENTRANCE OF THE DOMINANT SEVENTH ACCORD AFTER THE TRIAD UPON THE THIRD DEGREE OF THE SAME MODE.

Each of the four positions of the Dominant Seventh accord can be easily entered after the triad upon the third degree, the voices of which may be placed with the *octave*, *third* or *fifth* as Soprano, and in open or close position, *e. g.*

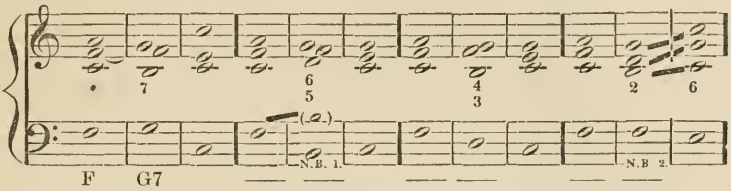


AFTER A TRIAD ON THE FOURTH DEGREE OF THE SAME MODE.

Here occurs a chord-succession (F—G) which, in triads, is totally without connecting tones, therefore, one of the especially difficult cases. The succession of the F major triad and G major with the additional minor seventh,

however, yields one connecting tone, (F) nevertheless, octaves and fifths are to be carefully guarded against, *e. g.*

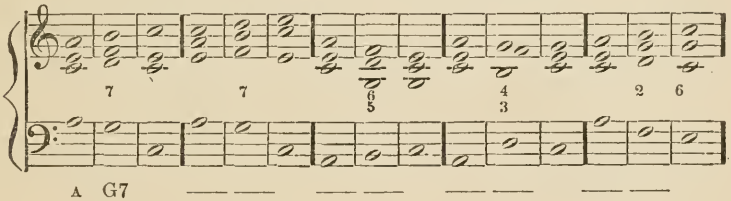
474.



At N.B. 1, Example 474, the Bass would be faulty if allowed to progress to the upper B, in parenthesis, because the F and B form an unmelodic interval (Tritone). The progression is therefore better from F to B below. At N.B. 2, the upper voices are allowed a freer leading for the purpose of securing a firmer close.

AFTER A TRIAD UPON THE SIXTH DEGREE.

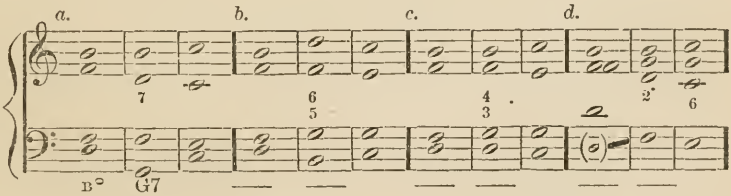
475.



AFTER THE SEVENTH DEGREE.

The diminished triad is most acceptable in its Third-Sixth position, and when used four-voiced the third is usually doubled as in the following examples:—

476.



The example at *d* (476), although not very good, is certainly better if the Bass commences with the upper D, rather than with that in the parenthesis, as the dissonance (F, G) is best approached in contrary motion.

CHAPTER XXVII.

CONCERNING THE ENTRANCE OF THE DOMINANT SEVENTH ACCORDS OF DIFFERENT MODES AFTER ANY CERTAIN SELECTED TRIAD. A NEW CONTRIBUTION TO THE PRECEDING TREATISE ON MODULATION.

Our next attempts will be to see if any and every Dominant Seventh accord can enter, with good voice-leading, after a single determined triad. We will choose for this purpose the triad of C major, and the attempt will be made to enter the Dominant Seventh accord of every other mode after this triad.

If the leading of each individual voice cannot be effected in a natural, flowing manner, then the whole entrance of the chord must be rejected, (the unmelodic progressions are here, as everywhere, augmented and diminished intervals, the major fourth (*tritone*) and major seventh).

In these experiments it will be found that not every position is favorable to the accomplishment of the desired result; with some positions it is possible and with others impossible. The chosen triad may be placed in its Fundamental, Third-Sixth or Fourth-Sixth position, with the *octave*, *third* or *fifth* as upper voice, and the attempt then made to enter the desired Dominant Seventh accord in any one of its four positions (7, $\frac{6}{5}$, $\frac{4}{3}$ or $\frac{4}{2}$). This, it will be seen, gives a great variety of ways which may be experimented upon. We present here a few examples, and, for the sake of a better survey, we will take each key in chromatic order; for example, the C major triad will be first followed by a Dominant Seventh accord *upon* (not *of*) C (477). Second, the C major triad will be followed by a Dominant Seventh accord upon C♯, and so on. The resolution in each case will be to the Tonic-triad of the key to which each Dominant Seventh accord respectively belongs. The mechanical process is as follows:—

1. Write down the triad determined upon as the starting-point (C major, here) in any position at will.

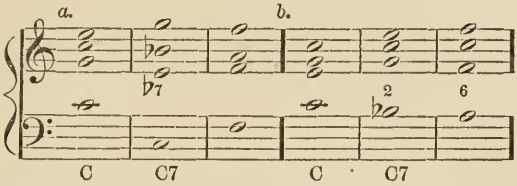
2. Write down such tones of the desired Dominant Seventh accord as are common to both chords, if there be any.

Remark.—Tones to be *chromatically altered* must be retained in the same voice, (see Ex. 478. See also Cross Relation, page 110).

3. Cause each *progressing* voice to move to its place in the Seventh accord by means of a melodic step, and avoid even covered octaves and fifths where possible.

C MAJOR TRIAD FOLLOWED BY A DOMINANT SEVENTH ACCORD UPON C.

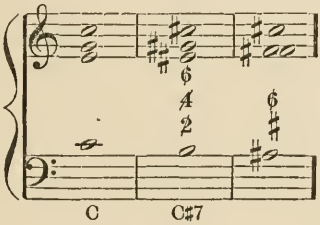
477.



At *a*, Example 477, instead of retaining the E and G in the same voices (Soprano and Tenor), as might have been done, a simple exchange is made, thereby increasing the *melodic* effect. The same remark applies at *b*. The other positions may be easily accomplished, our object here being only to indicate the process sufficiently clear to aid the pupil in his own experiments.

C MAJOR TRIAD FOLLOWED BY A DOMINANT SEVENTH ACCORD UPON C♯.

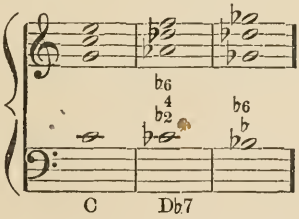
478.



It will be observed that in Example 478, all the tones to be chromatically altered are retained in the same voices. The modulation in Example 478, as well as that in many of the following examples, is to be found in modern compositions only.

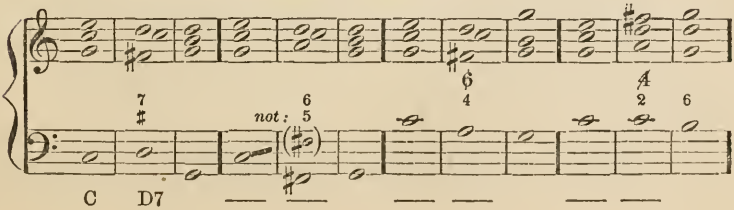
C MAJOR TRIAD FOLLOWED BY A DOMINANT SEVENTH ACCORD UPON D♭.

479.



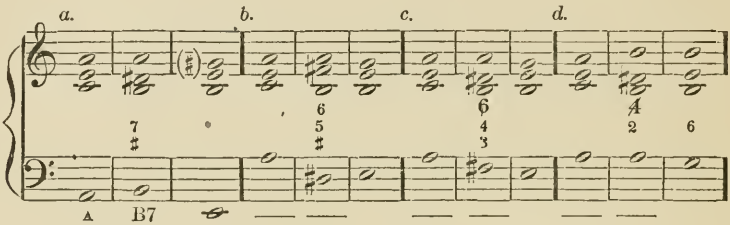
FOLLOWED BY A DOMINANT SEVENTH ACCORD UPON D.

480.



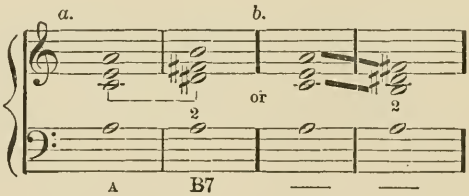
The modulation from a Tonic to the key of its Dominant occurs very frequently, therefore its fuller development here (480). The entrance of the Dominant Seventh accord upon D after the other positions and placing of the voices of the C major triad will be found comparatively easy. As this modulation is also often employed in minor modes, we present a few examples:—

481.



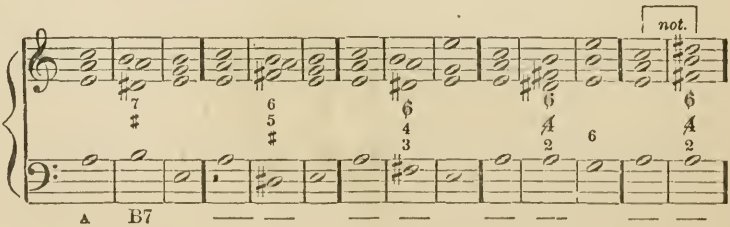
At *d*, (481) the Seventh accord appears with the *fifth* omitted, and the *fundamental* doubled. As already remarked, this is always allowable and especially so if bad voice-leading is thereby avoided. If the Seventh accord in this case had appeared with all its parts, after this placing of the triad, the voice-leading would necessarily have been as follows:—

482.



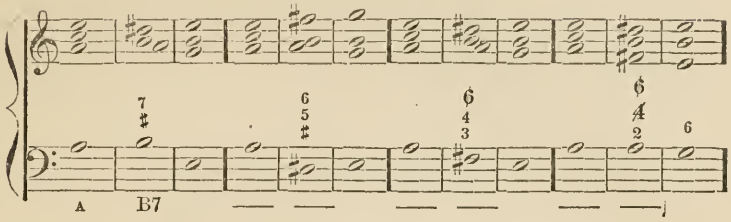
At *a*, (482) each voice is melodically led, except the Tenor which progresses from C to D♯, an augmented second. This compels the rejection of the succession with this leading. That at *b* is also objectionable on account of the unpleasant covered fifths. The leading at *d*, Example 481, will be found most acceptable. Placing the triad (A) with the *third* as upper voice, the entrance of a Dominant Seventh accord upon B will take place as follows (Ex. 483):—

483.



THE SAME MODULATION AS IN EXAMPLE 481, WITH THE FIFTH AS UPPER VOICE IN THE TRIAD.

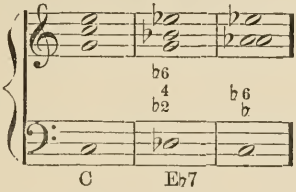
484.



We resume again our chosen order, and present now the

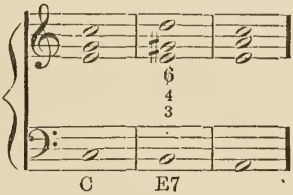
C MAJOR TRIAD FOLLOWED BY A DOMINANT SEVENTH ACCORD UPON E♭.

485.



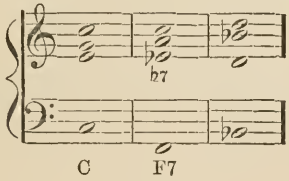
DOMINANT SEVENTH ACCORD UPON E.

486.



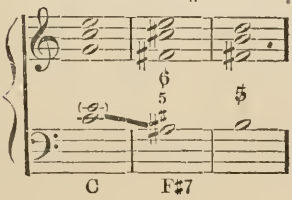
DOMINANT SEVENTH ACCORD UPON F.

487.



UPON F♯.

488,

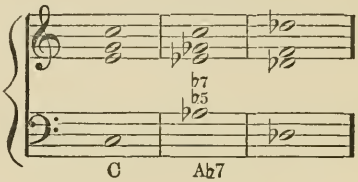


This is one of the doubtful successions on account of the progression of a diminished third in the Bass. It is used, however, to some extent by modern writers. From E to A♯, however, is better, (see note in parenthesis).

As we are already familiar with the manner in which the C major triad may be followed by a Dominant Seventh accord upon G, (see Chapter XXV.) no further example is necessary here. The next in order is that

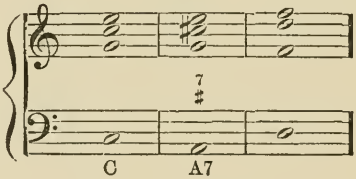
UPON A♭.

489.



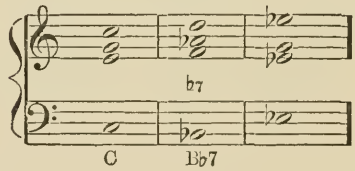
UPON A.

490.



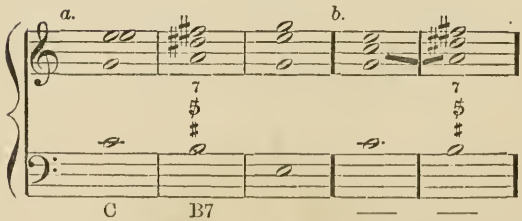
UPON B♭,

491.



UPON B.

492.



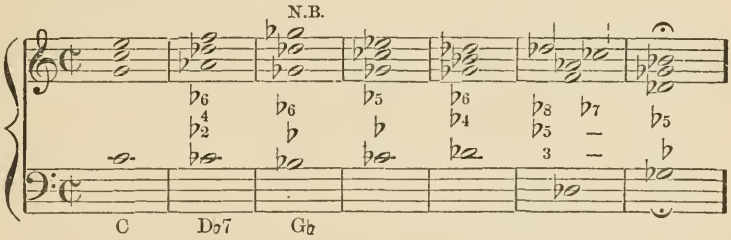
It will be found necessary to double the *third* in the triad (see *a*, Ex. 492) in order to avoid the bad voice-leading shown at *b*, in the Alto.

As observed at the beginning of this chapter, our object here is not to exhibit all the ways in which the Dominant Seventh accord of different modes

may enter after a single given triad, but rather to hint at what is possible in a sufficiently pointed manner to assist the pupil in accomplishing them alone. This work now is therefore to select some other triad, for example, D major or D minor, and attempt the entrance of the Dominant Seventh accord of all other modes after this triad, according to the suggestions and examples above set forth.

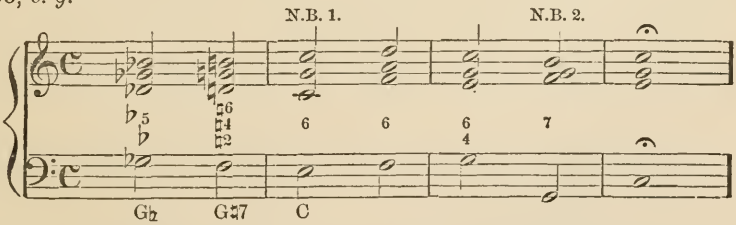
Thorough investigation and practice is suggested, as the subject is important and extensive, for, by the aid of the Dominant Seventh accord, as treated in the foregoing pages, we have a rich means in the sphere of Modulation. When a new key is reached by this means and it is desirable to firmly establish that key, it is only necessary to make use of the complete cadence, the same as in modulations with triads. For example, in a modulation from C to G♭, a distance of six relative degrees, the Dominant Seventh accord to that key may succeed the triad of C, so that the new Tonic triad is reached almost instantly (see N.B., Ex. 493). A complete cadence may then follow and the key of G♭ is firmly established, *e. g.*

493.



The return modulation (G♭—C) may be effected just as speedily as that in Ex. 493, *e. g.*

494.

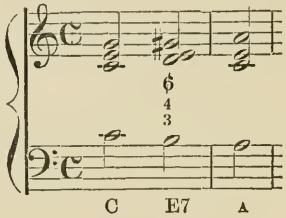


The new key appears at N.B. 1, 494, and at N.B. 2 in the cadence we make use of the Dominant Seventh accord instead of the Dominant-triad. The character of the Seventh accord, being dissonant, and therefore demanding a resolution, indicates the succession of a Tonic-triad more decisively than does the Dominant-triad.

As a fitting close to this chapter, we present a chord-succession, in which, by means of Dominant Seventh accords, a modulation is effected to all keys, finally returning to the starting-point. This example thoroughly in the mind

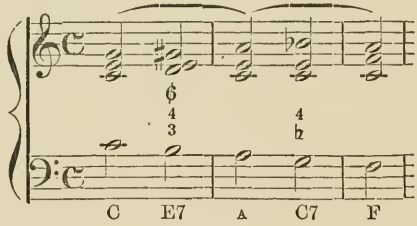
and fingers will always prove itself valuable to the practical harmonist in enabling him to modulate in a natural and agreeable manner from one key to any other. Each successive modulation is to that key related in the third, and is effected by means of the Dominant Seventh accord of each new mode For example, beginning with the C major triad, the first modulation will be to A minor (the key related in the third to C major) by means of the Dominant Seventh accord of the new key (E, G♯, B, D), *e. g.*

495.



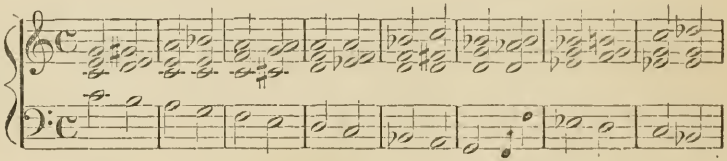
The next modulation will be from A minor to that key related in the third to it (F major). The modulation is effected by means of the Dominant Seventh accord (C, E, G, B♭) of the new key, *e. g.*

496.

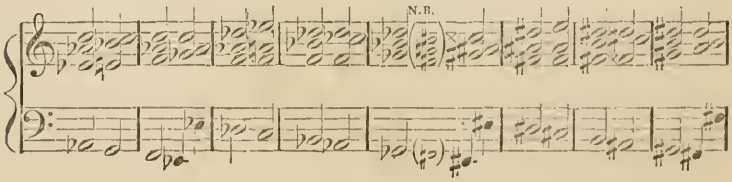


By carrying out this method of modulation the result will be as follows,—a passage touching every major and minor key, any one of which might be firmly established, if desirable, by the addition of a cadence, *e. g.*

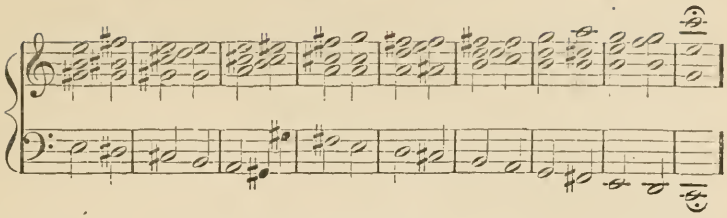
497.



498



199.



The enharmonic change at N.B. is necessary in order that the modulation may return to C♯.

CHAPTER XXVIII.

SECONDARY RESOLUTIONS OF SEVENTH ACCORDS.

Heretofore we have presented only the *primary* or principal resolution of the Dominant Seventh accord. In the present chapter it is proposed to discuss the other, or, so to speak, *secondary* resolutions. We will employ for our examples the Dominant Seventh accord of the mode of C major or C minor (G, B, D, F), the primary resolution of which is to the triad, C, E, G or C, E♭, G. Its resolution to any other triads than these would therefore be called, for the sake of distinction, *secondary*. The attempt will be made in the following examples to resolve the Seventh accord to all the other triads common to the modes of C major and C minor. The principle already explained on page 162 finds application here also, *viz*:—

A tone which has already been heard with the dissonant accord, cannot be used immediately afterward as the resolution of any tone of that accord.

Therefore, in attempting to resolve a Dominant Seventh accord (it applies as well to all other Seventh accords) into any chosen triad, the tones common to both chords must be used as *connecting tones* only, and no *resolving* or *progressing* voice in the Seventh accord is to be allowed to move to any one of these connecting tones. Consequently, those voices which do progress, must resolve themselves *degree-wise* to the tone or tones of the triad of resolution not to be found in the Seventh accord.

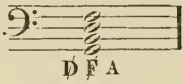
RESOLUTION TO THE TRIAD ON THE SECOND DEGREE.

To explain this more clearly, let us attempt to resolve the Dominant Seventh accord in C major (G, B, D, F) to the triad of D minor (D, F, A) situated on the second degree of the C major scale. The mechanical process is as follows:

1. Write down the Seventh accord, and, underneath it, place the letters of the triad to which it is proposed to effect a resolution, *e. g.*

500.

2. Strike out such letters as are to be found in the Seventh accord, *e. g.*

501. 

3. The letters thus stricken out are to be used as connecting tones, *e. g.*

502.

4. The remaining letters of the Seventh accord (G and B) are to be resolved degree-wise to that tone (A) of the triad not common to the Seventh accord, *e. g*

503.

If the G were resolved to F, as in Example 504, it would be a transgression of the above principle, as the F has already been heard in the dissonant chord:—

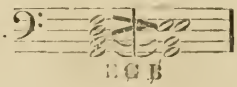
not.

504.

The G is a *progressing* voice and must therefore resolve *degree-wise* to a tone not found in its own chord. Each tone of the Seventh accord is either to be *bound* or resolved *degree-wise; no voice*, in the secondary resolutions, *is allowed to spring.*

RESOLUTION TO THE TRIAD ON THE THIRD SCALE DEGREE.

The resolution of the same Seventh accord to the triad on the third scale degree (E minor) is effected in the same manner, *viz:* First, write down the Seventh accord, and, placing the letters of the triad of resolution underneath, strike out such letters as are common to both chords, using these letters as connecting tones; finally, resolve the progressing voices into the letter not stricken out, *e. g.*

505. 

* See foot-note on page 161.

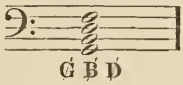
RESOLUTION TO THE TRIAD ON THE FOURTH SCALE DEGREE.

The same process is always to be employed in experimenting with the different resolutions of a Seventh accord, and will be found an infallible guide as to what is possible and what is not possible. In this resolution we find only one connecting tone (F), therefore, the progressing voices of the Seventh accord have two tones in the triad to which they can resolve, *e.g.*

506.

The F is bound, the D *must* resolve to C, the G to A, while the B *may* resolve to C or A; best, however, to C because B is the *leading*-tone in the mode of C major.

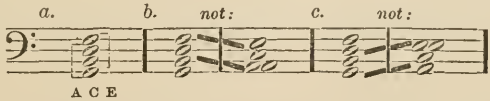
TO THE TRIAD ON THE FIFTH DEGREE.

507. 

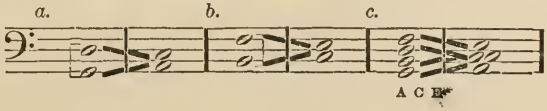
It will be seen that all the tones of this triad (G, B, D) are common to the Seventh accord, therefore, all of them must be bound, and no tone remains to serve as a *resolution* for the F. The F cannot resolve to G, because that tone has already been heard; neither can it resolve to D, because that would be *spring*-wise, while a *resolution* must always take place *degree*-wise. The conclusion is, therefore, that the triad of G major cannot serve as a resolution of the Dominant Seventh accord upon G.

TO THE TRIAD ON THE SIXTH DEGREE.

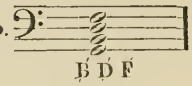
None of the tones of the A minor triad are common to the Seventh accord upon G, consequently all the voices in the Seventh accord are *progressing* ones. Care, however, is necessary in order to avoid parallel fifths, of which there is a double liability here, as there are two fifths contained in the Seventh accord, (see brackets at *a*, and faulty resolutions at *b* and *c*, Ex. 508).

508. 

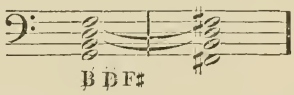
If the voices of each fifth are led in *contrary* motion, the faults will be avoided. The G and D (*fundamental* and *fifth*) will be resolved as at *a*, Example 509, and the B and F (*third* and *seventh*) as at *b*. The reunited Seventh accord with its proper resolution is seen at *c*:—

509. 

TO THE TRIAD ON THE SEVENTH DEGREE.

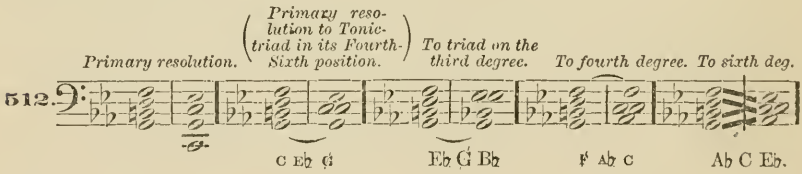
510. 

Again, all the tones of the triad are found common to the Seventh accord, therefore, no resolution can take place, and beside, if the progression *were* to take place it would not be a *resolution*, because the triad is itself dissonant and requires a resolution. By chromatically altering the F, of the diminished triad, to F♯, however, we gain a consonant triad (B, D, F♯) which has one tone (F♯) not common to our Seventh accord. The B and D may be bound and the G and F be resolved to F♯ as in Example 511:—

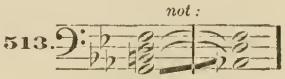
511. 

RESOLUTION TO THE VARIOUS TRIADS IN THE MODE OF C MINOR.

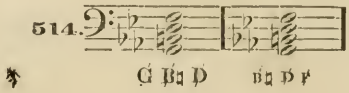
The resolutions of the Dominant Seventh accord (the same for both C major and C minor) to the various triads in the mode of C minor which can be correctly accomplished, are presented in Example 512:—



The resolution, or rather, going over of the Dominant Seventh accord to the diminished triad on the Second degree of the minor scale, cannot take place because no resolution of the *third* (B, here) in the Seventh accord is possible. The tones D and F, in the present case, may be bound, and the G resolve to A♭, but the B can go neither to A♭ nor D, for both are more than a *degree* distant, *e. g.*



The resolution to the triads on the fifth and seventh degrees cannot be effected because all the tones of each triad are common to the Seventh accord, thus:—

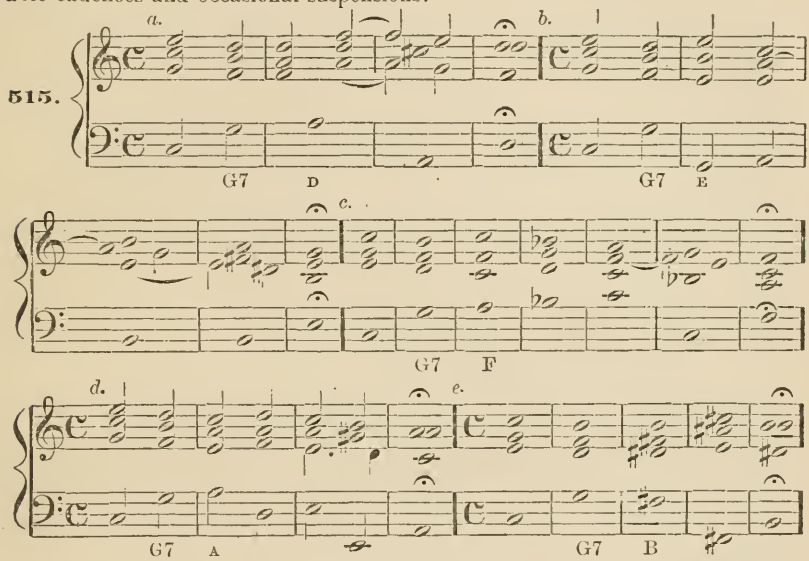


APPLICATION.

Having shown the variety of ways in which a Dominant Seventh accord may be resolved, it is the purpose of the following examples to suggest in what manner these resolutions may be employed in the field of modulation. It will be seen that with their aid all of the near related and many of the most foreign keys can be reached almost instantly, when, if desirable, the new key may be established by means of a cadence similar to those here used.

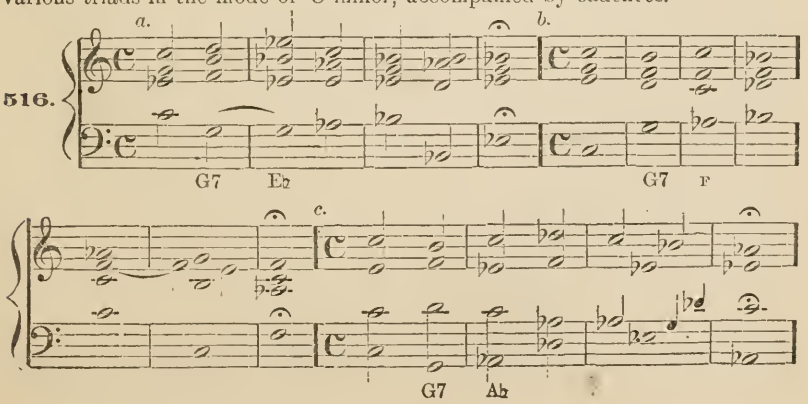
Example 515, shows the entrance of the Dominant Seventh accord to C and its resolution to various triads in the mode of C major, together with suitable cadences and occasional suspensions:—

515.



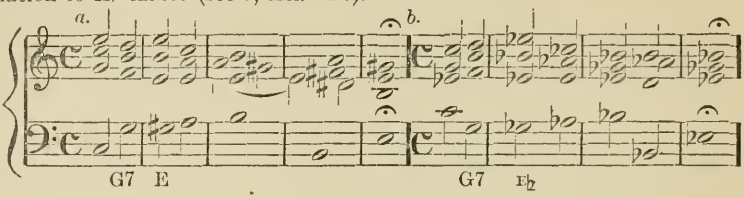
Example 516 shows the resolution of the same Dominant Seventh accord to various triads in the mode of C minor, accompanied by cadences.

516.



The scope of these resolutions may often be extended by simple chromatic alterations. Thus, the example at *b*, (515) may be changed to a modulation to E major (see *a*, Ex. 517); or, that at *a*, Example 516, may be changed to a modulation to E♭ minor (see *b*, Ex. 517).

517.



The exercise of the pupil at this point should be to select a different Dominant Seventh accord, for instance that in the mode of F (C, E, G, B♭) and attempt resolutions to the various triads in the modes of F major and F minor in the manner indicated on pages 183—186. Then these resolutions should be employed in short modulatory phrases, with cadences, similar to those in Examples 515 to 517. Other Dominant Seventh accords may then be chosen, upon which to practice the various resolutions, and the subject pursued until fully comprehended.

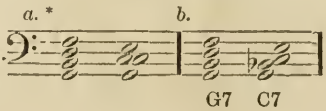
CHAPTER XXIX.

DECEPTIVE PROGRESSIONS. (DECEPTIVE CADENCES.)

The musical instinct awaits the *resolution* of every *dissonant* accord to another which is *consonant*. When, however, a *dissonant* accord, instead of coming to a point of rest in a consonant accord, *goes over* (not *resolves*) to another *dissonant* accord, the procedure is termed a *deceptive cadence* or *progression*. Here, as everywhere, the voice-leading must be free from unmelodic steps, parallel fifths and octaves, and cross-relations. In our illustrative examples, we shall make use of the Dominant Seventh accord as in preceding pages, (G, B, D, F), and the proposition will be to follow this accord with the Dominant Seventh accord upon various other tones in chromatic order, (C, C♯, D♭, D, etc).

If, instead of the *expected resolution*, as at *a*, Example 518, the tone B in the Seventh accord goes over to the original minor seventh in the second chord, as at *b*, the result is the formation of a new dissonant accord and the progression would be termed a *deceptive cadence*, *e. g.*

518.

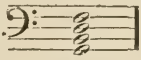


* See foot-note, page 161.

The mechanical process here is very similar to that set forth in connection with the secondary resolutions of a Seventh accord.

1. Having written down the Seventh accord and placed underneath it the letters of the Seventh accord to which it is proposed to attempt the progression, proceed to strike out such letters as are common to both chords, *e. g.*

519.



C E G B♭

2. Bind or write down the tones common to both chords and those to be chromatically altered, *e. g.*

520.

C E G B♭

3. Progress the other tones degree-wise to their places (to the tones not stricken out) in the new accord, *e. g.*

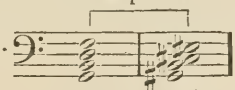
521.

C E G B♭

It will be found that with some positions of the first accord, the proposed progression cannot be accomplished without faulty voice-leading. All positions should be tried, and if all are attended with faults, nothing remains but rejection.

The progression from our chosen Dominant Seventh accord to that upon C♯, the next tone in order, is seen in Example 522:—

522.

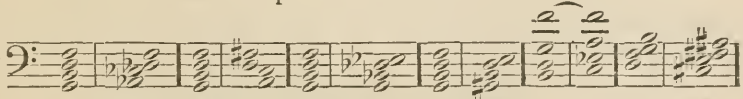


C♯ E♯ G♯ B

While the enharmonic change (F to E♯) may be unobjectionable in instrumental compositions, it is not to be recommended in vocal. This distinction is applicable to some other progressions given below.

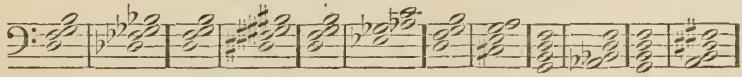
Without pausing to explain the treatment of each example, as in the above, we give at once, in No. 523, various progressions of the same Dominant Seventh accord to like accords upon other tones:—

523 *a.*



G7 D♭7 G7 D7 G7 E♭7 G7 E7 G7 F7 G7 F♯7

523 *b.*



G7 G♭7 G7 G♯7 G7 A♭7 G7 A7 G7 B♭7 G7 B7

Such striking and often harsh sounding chord-successions as we have here indicated are of course peculiar to modern composition, and are not to be employed except where this identical striking effect is sought after. As remarked in connection with the more remarkable *triad*-successions, they are, like spice, to be used sparingly. It will be self-understood that they are not appropriate in compositions of an earnest religious character.

We close this chapter by presenting the beginning of a succession of Dominant Seventh accords, leaving the student to set forth and complete the exercise. The passage begins upon the triad of C major and should end upon this triad, but, to this end, an enharmonic change will be found necessary at some point in order to finally reach the C♮ again (see further explanation on page 143).

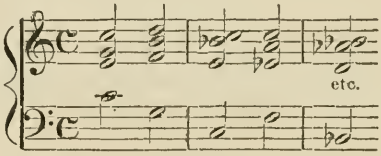
The chord-succession alluded to is to be constructed in the following manner:—

All the voices of each Dominant Seventh accord, excepting the *third*, are given their *primary* resolution; *i. e.*:

The *Bass* falls a major fifth;
The *Seventh* falls a diatonic half-step;
The *Fifth* falls a whole-step;

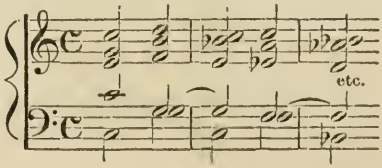
The *third*, however, instead of resolving a half-step upward to the Tonic or falling to the fifth as in the primary resolution, *falls a chromatic half-step* to the minor seventh of the new fundamental, thereby forming a new Dominant Seventh accord. When writing this passage four-voiced, the *fifth* is of necessity omitted in each alternate accord, *e. g.*

524.



If another voice be added, as in the following example, the *fifth* may be caused to appear in each accord.

525.



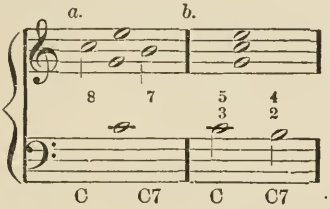
CHAPTER XXX.

CONCERNING OTHER SEVENTH CHORD FORMATIONS.

The proposition at present before us is the consideration of all those Seventh accord formations which can arise from the combination of the natural or stem-tones (*i. e.*, without chromatic alterations) of any major or minor mode,—how they may *enter* and *progress* or *resolve.*

I. A Seventh accord may arise when a subsequent-seventh follows the *octave* or *fundamental* in a triad, *e. g.*

526.

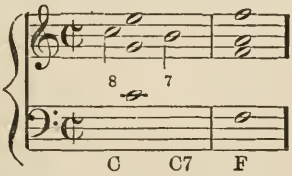


Upon the entrance of this subsequent-seventh (B) the triad (C, E, G) is changed to a Seventh accord, (C, E, G, B). A subsequent-seventh enters in the character of a passing-note, and, unless the sharp effect given by an accent is specially desired, it is milder unaccented.

The resolution of these Seventh accords is effected in the same manner as the Dominant Seventh accord already discussed. The *primary* resolution will be used in the immediate following examples and the *secondary* farther on.

The primary resolution of the Seventh accord in the example at *a*, No. 526, will be as follows:—

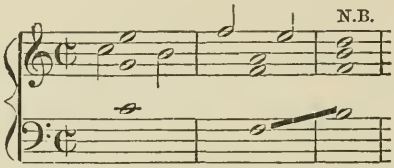
527.



The Bass (C) falls a major fifth (to F), and upon this tone a consonant triad is to be formed. The *seventh* (B) therefore falls a degree (to A); the *third* (E) occurring here as the leading-tone in an outer voice, resolves to the Tonic (to F) and the *fifth* (G) falls best to the Tonic (to F). If the *third* (E) had appeared as a middle voice it might have been resolved downward to the *fifth* of the triad for the sake of the greater fulness, the same as in the Dominant Seventh accord.

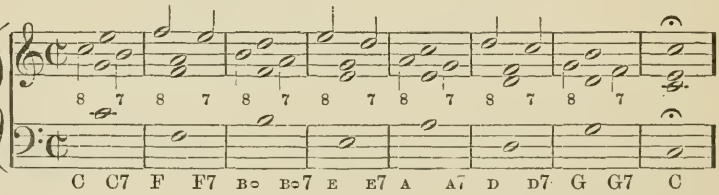
If, now, a subsequent-seventh follów the *octave* of this triad of resolution (F, A, C), another Seventh accord arises which is to be treated in a similar manner, *e. g.*

528.



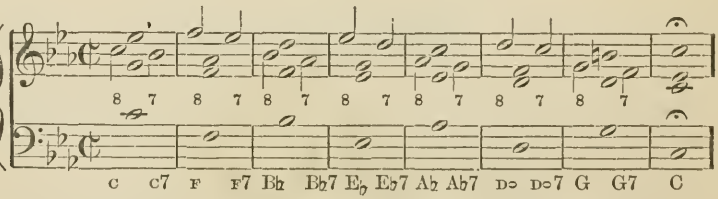
The triad at N.B., being dissonant, is not to be regarded as a *resolution*,—although all the voices are moved as in a resolution,—but rather as a *progression* of the Seventh accord. The *tri-tone* in the Bass is by itself objectionable, but the purpose of this, as well as the use of the diminished triad, will appear in the next example in enabling us, by perpetuating the sequence, to form a passage in which shall appear all the Seventh accords possible to the stem-tones of a major or minor mode, *e. g.*

529.

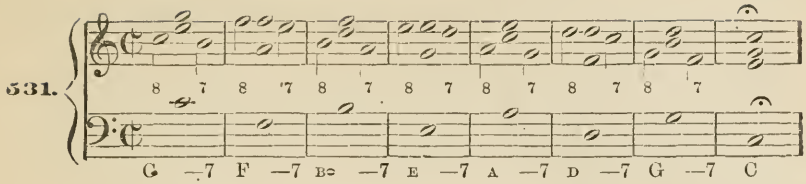


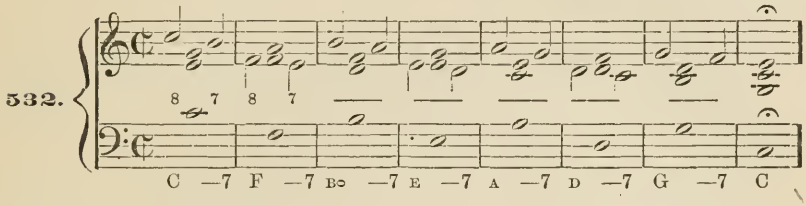
The above example shows the *entrance* and *progression* or *resolution* of every Seventh accord in the Normal modes of C major and A minor. This example, as well as those to come, may be easily caused to appear in the similar-named minor mode (C minor) by simply adding the proper signature (three flats here), and using only the stem-tones of that mode (C, d, e♭, f, g, a♭, b♭, C), except in the cadence, in which, according to universal custom, the Dominant-triad with or without seventh should be *major*, thereby necessitating a chromatic alteration of its *third*, *e. g.*

530.

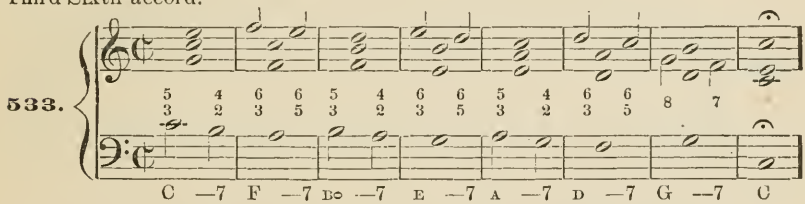


Examples 531, 532 and 533, in major, presenting similar passages commencing with different placing of the voices, should be converted into minor as in Example 530, and both major and minor practiced in various keys.



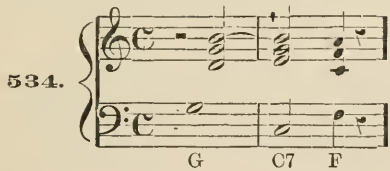


The subsequent-seventh may appear in the Bass after the *fundamental* of the triad, as in the following example. The resolution however, will be to a Third-Sixth accord.



II. ENTRANCE, PROGRESSION AND RESOLUTION OF SEVENTH ACCORDS WITH BOUND SEVENTH.

When the seventh is bound, as in the following example, all Seventh accords may enter, the harshest as well as the mildest:—



With the entrance of Seventh accords in this wise, according to classical rule, the *seventh* is to be treated exactly like any bound dissonance:

1. The *bound seventh* must have been *consonant* in the preceding or *preparation accord.*

2. The *preparation-note* or consonance must be as *long* or *longer* (not *shorter*) than the *bound seventh* or *dissonance.*

3. The *attack* of the bound seventh must take place upon an *accented* measural-division.

4. The *resolution* of the seventh must be degree-wise and the whole accord the same as usual.

The following examples exhibit the *entrance* and primary *progression* or *resolution* of all the Seventh accords (Fundamental position) with a bound seventh which can be formed with the stem-tones of a Normal major or minor mode. The examples begin with the *octave, third* and *fifth* as upper voice respectively.

535.

F7 E7 D7 C7 B∘7 A7 G7 — C

536.

F7 E7 D7 C7 B∘7 A7 G7 — C

537.

F7 E7 D7 C7 B∘7 A7 G7 — C

ENTRANCE AND RESOLUTION OR PROGRESSION OF BOUND SEVENTH ACCORDS IN THEIR FIFTH-SIXTH POSITION.

Making use of the same sequence form as in Example 534, each triad will be succeeded by a Seventh accord in its Fifth-Sixth position, *e. g.*

538.

G C7

The mechanical process succeeding the writing down of the triad is as follows:—

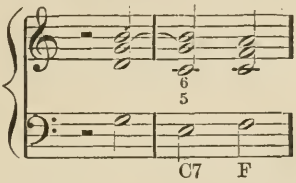
1. The Bass (the original *third*) of the Seventh accord is to be first written down.

2. That tone of the triad which is to form the *seventh* is to be bound.

3. The remaining tones of the triad are to assume the unfilled places in the Seventh accord.

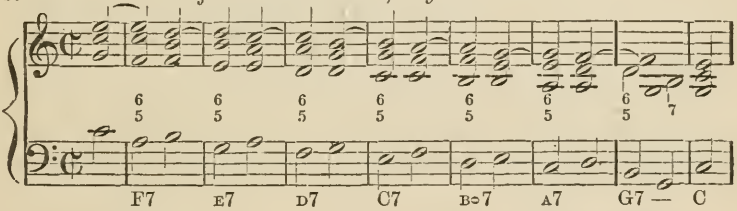
It is not to be forgotten that the *entrance* of the Seventh accord with bound seventh is in all positions to take place accented. If we give the Seventh accord in Example 538, its *primary* resolution, the fundamental (C) will fall a fifth to F, upon which a triad will appear, *e. g.*

539.



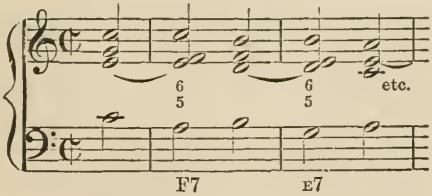
Now, if after each triad resolution we cause a new Seventh accord to enter in the above manner, we shall have a passage giving the entrance and progression or resolution of the Fifth-Sixth position of every Seventh accord possible to the stem-tones of a major or minor mode, *e. g.*

540.

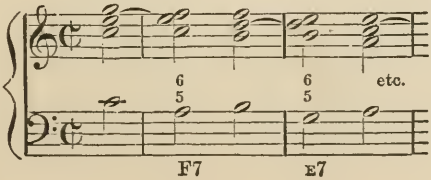


Examples with different placing of the voices; *i. e.*, with the *octave* or *fifth* as upper voice in each triad, we commence only, leaving it to the pupil to set forth and finish them, *e. g.*

541.



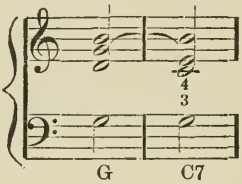
542.



ENTRANCE AND RESOLUTION OR PROGRESSION OF BOUND SEVENTH ACCORDS IN THEIR THIRD-FOURTH POSITION.

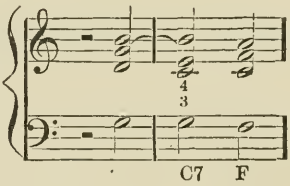
The Bass of the Seventh accord will be its original *fifth*, the *seventh* will be bound as before, while the two remaining members (*fundamental* and *third*) are to be reached from the triad as melodically as possible, *e. g.*

543.



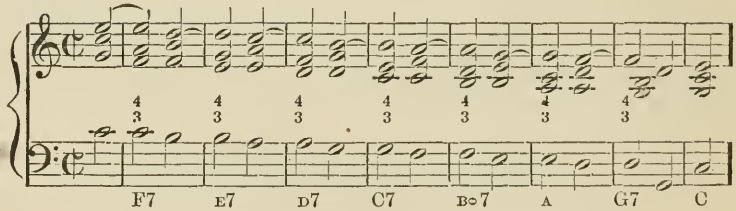
The *primary* resolution (*fundamental* falls a *fifth*) will be to the triad of F, *e. g.*

544.



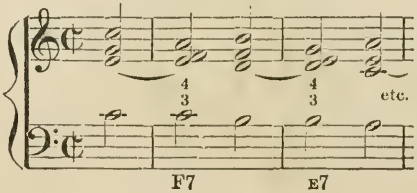
If we perpetuate this sequence the result will be a passage showing the *entrance* and *resolution* or *progression* of all the Seventh accords, in their Third-Fourth position, in a major or minor mode, *e. g.*

545.

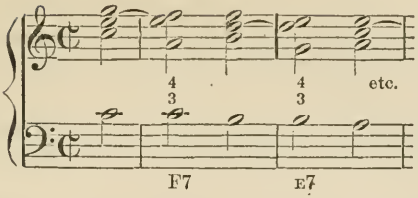


Examples 546 and 547, with *octave* and *fifth* as upper voice of the triad respectively, are to be completed by the pupil:—

546.



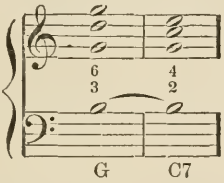
547.



ENTRANCE AND RESOLUTION OR PROGRESSION OF BOUND SEVENTH ACCORDS IN THEIR SECOND POSITION.

In this case the Bass of the Seventh accord will be the original seventh, therefore, that is the voice to be bound. In order to have the bound seventh to appear as the Bass, it is necessary that the same tone shall have been the Bass in the preparation triad. Thus, in the same succession which we have previously used in the illustrative examples (Nos. 534, 538 and 543), *viz*: G major triad and the Seventh accord, (C, E, G, B), the *seventh* (B) must have been the Bass in the triad of G, thereby causing that triad to appear in its Third-Sixth position preparatory to the entrance of the Seventh accord alluded to, *e. g.*

548.



The voice-leading in the *entrance* of the Seventh accord in the above position should be as follows:—

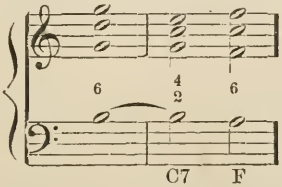
1. Bind the seventh.

2. Lead that voice of the triad which can most naturally move to the *fundamental* of the Seventh accord.

3. Cause the remaining tones of the triad to assume the still vacant places in the Seventh accord.

The *primary resolution* of the Seventh accord will take place when the *fundamental* falls a fifth, upon which new tone a consonant triad is formed, *e. g.*

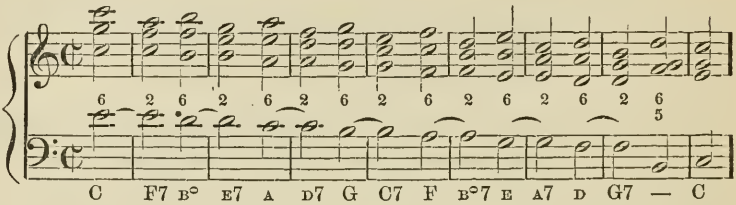
549.



Inasmuch as the preceding resolution (Ex. 549) yields another Third-Sixth accord; its Bass can again be bound and become the *seventh* of a new Seventh

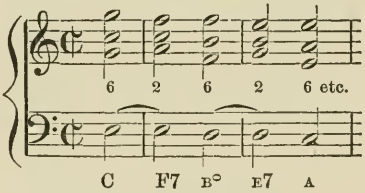
accord. Continuing in this manner, a passage will be formed exhibiting the *entrance* and *resolution* or *progression* of the second position of all the Seventh accords common to the stem-tones of a major or minor mode, *e. g.*

550.



A similar passage may be formed with the fifth as upper voice of the triads. The pupil should complete the following example:—

551.



FURTHER TREATMENT OF BOUND SEVENTH ACCORDS.

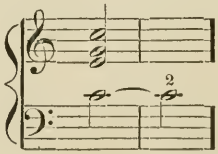
ENTRANCE OF THREE DIFFERENT BOUND SEVENTH ACCORDS AFTER A SINGLE DETERMINED TRIAD.

Thus far the bound Seventh accord has each time entered in the same manner, *i. e.*, by the *fundamental* of the preparation-triad falling a fifth. Thus, the same tones in each example have served as bound sevenths.

We remark now that *each tone of any triad* (its *fundamental, third, fifth* or *octave*) *may be used as the bound seventh in a following Seventh accord.*

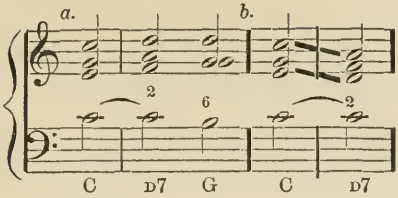
I. For example, if the *fundamental* of a triad be chosen as the tone to be bound, then that tone is the first to be written down, *e. g.*

552.



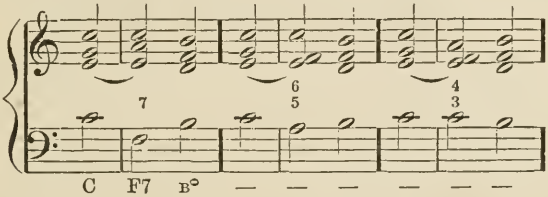
The chord, of which the bound tone (C) is the seventh, is composed of the tones D, F, A, C, consequently, the three remaining voices in the triad (Soprano, Alto and Tenor) are to be led as melodically as possible to the three tones (D, F, A —) necessary to complete the Seventh accord, (see *a*, Ex. 553.) The leading at *b* is not so good on account of the covered fifths. The *primary* resolution is given in the following examples.

553.



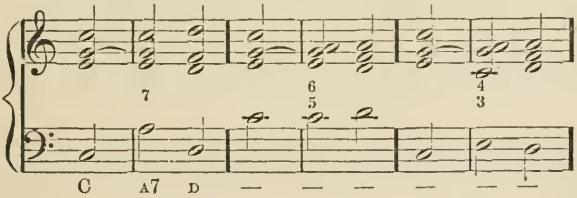
II. If the *third* (E) of the triad of C major be bound and used as the *seventh* in a following Seventh accord, that chord will be composed of the tones F, A, C, E. As before, first write down the tone which is to become the seventh, then such tones, if there be any, as it is possible to retain, and, finally, progress the remaining voices to the still vacant places in the Seventh accord. Different positions of the same Seventh accord are shown in Ex. 554.

554.



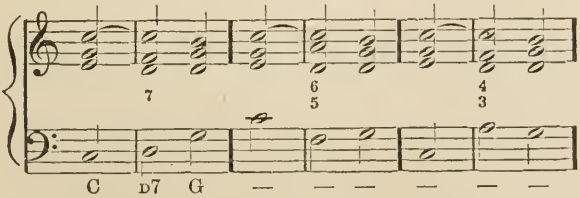
III. Again, if the *fifth* (G) in the triad of C major is used as the bound seventh in a following Seventh accord, that accord will consist of the tones A, C, E, G. Its entrance in different positions is given in Ex. 555.

555.



IV. Finally, if the *octave* (C) in the triad of C major is used in the same capacity, the Seventh accord will be formed of the tones D, F, A, C, *e. g.*

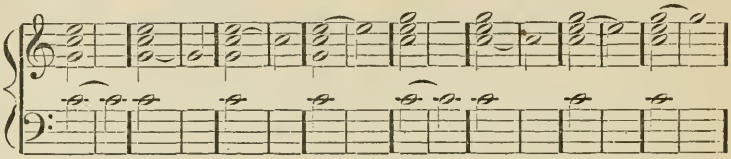
556.



The exercise of the pupil at this point should be to place the same triad we have here used (C major) with the *third* or *fifth* as upper voice, and in turn

use each voice as the bound seventh in a following Seventh accord. We give, in Ex. 557, the beginning of these exercises leaving the pupil to fill out the Seventh accords and add the primary resolution to each.

557.

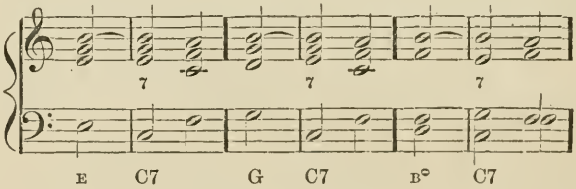


Having worked out the above exercises, other major and minor triads should be used in the same way. It will readily be seen what a wide and important field is thus opened.

ENTRANCE OF A SINGLE DETERMINED BOUND SEVENTH ACCORD AFTER THREE DIFFERENT TRIADS.

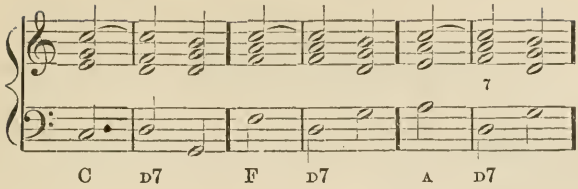
In the above, three different bound Seventh accords (D7, F7, A7) were caused to enter after the same triad (C major). As antithesis to this, a single determined bound Seventh accord may enter after three different triads, or after as many triads as contain that tone which is to become the bound seventh in the Seventh accord. To illustrate this we will make use of the Seventh accord which stands on the first degree of the scale of C major, (C, E, G, B). The *seventh* (B) is to be found in three different triads common to the mode of C major,—as *fifth* in the triad of E minor, as *third* in that of G major, and as *fundamental* in that of B diminished. It follows therefore, that the B in each one of these triads can be bound, and, by proper leading of the other voices, become the seventh in a following Seventh accord. The mechanical process is the same here as with the entrance of all bound Seventh accords, *e. g.*

558.



In the same manner the Seventh accords upon every other degree of the scale (see page 159) may each enter after the three different triads which chance to contain the tone, which, by being bound, may become the *seventh* in one of these Seventh accords. We give one more example (559) using that Seventh accord which stands upon the second degree of the scale of C major,—(D, F, A, C). The *seventh* (C) of this chord is found common to the triads of C major, F major and A minor, therefore, each one of these may be used as a preparation-triad to the same bound Seventh accord, *e. g.*

559.



It is suggested to the student to attempt the entrance of the Seventh accords upon the remaining degrees of the scale (see page 159) in the manner set forth above.

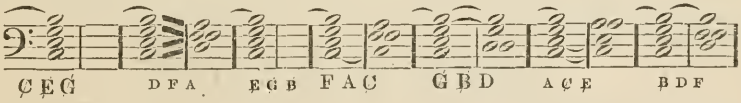
SECONDARY RESOLUTIONS OF THE FOREGOING SEVENTH ACCORDS.

In connection with the Dominant Seventh accord many different resolutions of the same accord were exhibited, one of which was termed *primary*, and all the rest *secondary*. What was said there is only to be repeated here.

A bound Seventh accord is capable of being resolved to every triad common to its own mode, (also to some triads foreign to its own mode, though these latter naturally belong to the romantic style of composition), excepting such as are contained in the Seventh accord itself. The same as with the Dominant Seventh accord, the pupil can make these experiments himself and prove satisfactorily which resolutions are possible and which are not. We take for example, the Seventh accord (C, E, G, B) and the attempt will be made to resolve it to each of the triads common to the mode of C major.

Remark.—As the Seventh accord we have chosen cannot enter *free*, the ties will indicate its supposed preparation by means of a preceding accord.

560.



The resolution of this Seventh accord to the triads of C major and E minor cannot be effected, because all the tones of these triads are contained in the Seventh accord, (see principle and process laid down, pages 183-5). The pupil should now make the same experiments with the other Seventh accords common to the mode of C major.

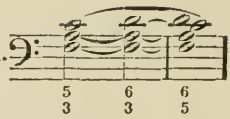
APPLICATION OF SEVENTH ACCORDS IN CADENCES.

Instead of cadences formed entirely of triads, we are now able to employ Seventh accords also.

We have already learned that upon the Sub-dominant we may use either a Third-Fifth ($\frac{5}{3}$) or Third-Sixth ($\frac{6}{3}$) accord.

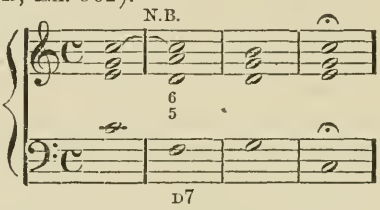
If we merge these two chords into one, a Fifth-Sixth accord (a Seventh accord in its Fifth-Sixth position) is the result, *e. g.*

561.



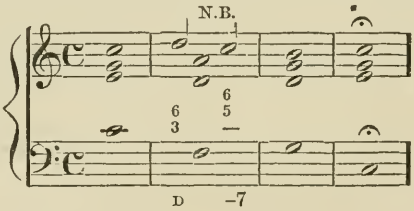
This Seventh accord, the Fifth-Sixth position of that Seventh accord upon the second degree of the scale of C major, may appear in a cadence in the following wise, (N.B, Ex. 562).

562.



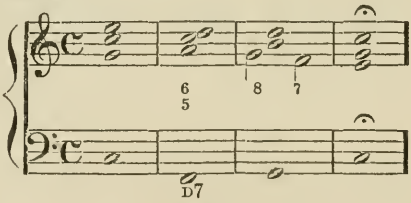
As the Seventh accord above used does not contain a diminished triad it cannot enter free. It must therefore be bound, as here, or enter as a subsequent-seventh, as in Ex. 563, (N.B). The primary resolution is used here.

563.



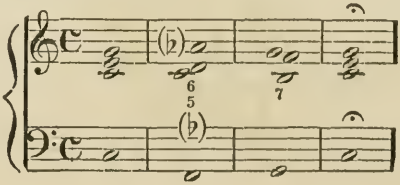
Example 564, presents another form of the above (563) and also a Seventh accord upon the Dominant:

564.



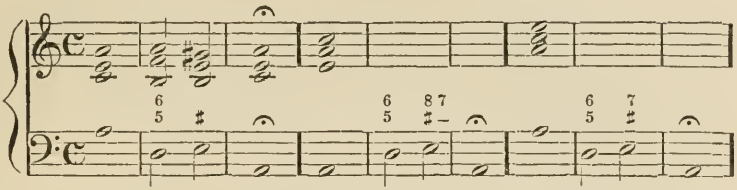
We have shown in a previous chapter how two Seventh accords can succeed each other. This may be effected here in the following manner, with or without the chromatic alteration, (A♭) which altered tone occurs in the minor Sub-dominant-triad (F, A♭, C), *e. g.*

565.



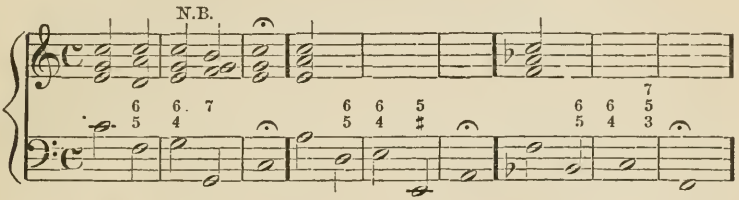
The following examples in minor are to be filled out by the pupil in the same manner as the foregoing in major:

566.



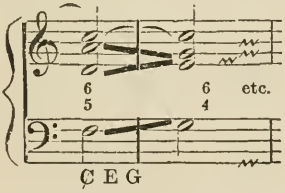
In the following cadence it will be seen that the Seventh accord upon the Sub-dominant is resolved to the Tonic-triad in its Fourth-Sixth position (N.B). The unfinished examples are to be worked out by the pupil.

567.



If any proof were necessary as to the correctness of the above resolution, (N.B.) the same infallible test may be applied as heretofore explained, *e.g.*

568.

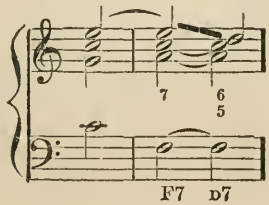


All of the above cadences are to be thoroughly exercised in all keys, both in writing and playing.

SUCCESSION OF SEVENTH ACCORDS.

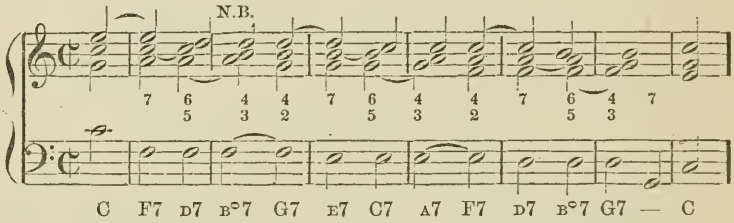
I. If the *seventh* in a Seventh accord be regularly resolved a degree downwards while at the same time all the other voices remain in their places, a *new* Seventh accord arises. This may be termed a deceptive cadence, *e. g.*

569.



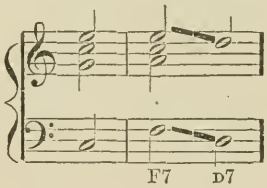
If, now, the original *seventh* (C) of the second Seventh accord (D7) be resolved a degree downward, while the other voices remain in their places, another Seventh accord will arise (N.B., Ex. 570). If this process is set forth, the result will be a passage of continuous Seventh accords, each of which will be prepared by its preceding Seventh accord (see Ex. 570). It is to be understood that each successive accord, in the following exercises, is to remain in the same mode as its predecessor so that the original mode may not be departed from :—

570.



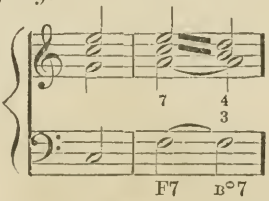
Each Seventh accord in the above enters with a *bound* seventh, answering therefore to the strongest classical rules. This and the following similar examples may be produced in C minor by applying the proper signature and using a *major* Dominant accord in the cadence (see Ex. 530 on page 192). The exercise should also be worked out with *octave* or *fifth* as upper voice in the commencing triad. It will be noticed that each successive accord appears in a different position. Example 571, shows that the Fundamental position could not be used continuously, on account of the too perceptible octaves.

571.



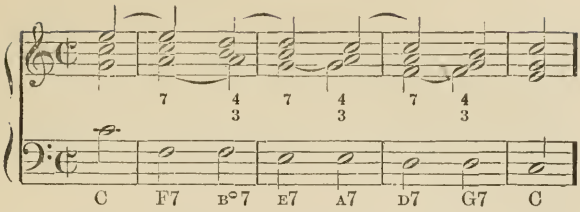
II. If the *fifth* and *seventh* in a Seventh accord are allowed to fall a degree each, while the other voices remain in their places, a new Seventh accord with bound seventh arises, *e. g.*

572.



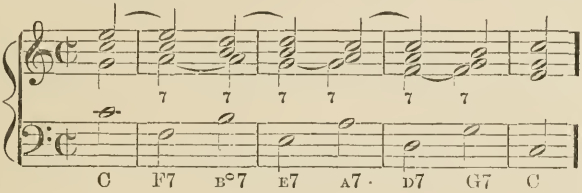
If the original *fifth* and *seventh* in the second Seventh accord (B°7) are allowed to fall again a degree, the result is another Seventh accord with bound seventh, and so on, *ad libitum.*

573.



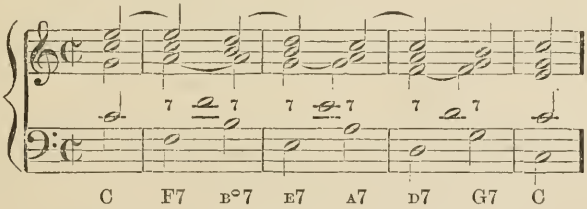
In the above example (573) the Seventh accords appear alternately in the Fundamental and Third-Fourth position. The following example presents the same succession, using only the Fundamental position; the *fifth* is necessarily omitted in each alternate accord, *e. g.*

574.



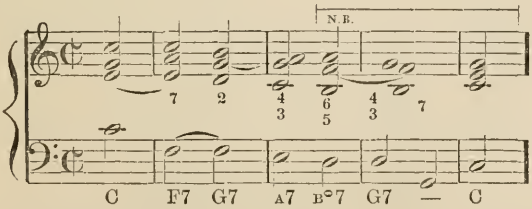
If a fifth voice be added, as in the following example, each Seventh accord will appear with a full complement of voices.

575.



III. If the *third*, *fifth* and *seventh* of a Seventh accord are caused to fall a degree while the *fundamental* remains in its place, the result is another Seventh accord with bound seventh, *e. g.*

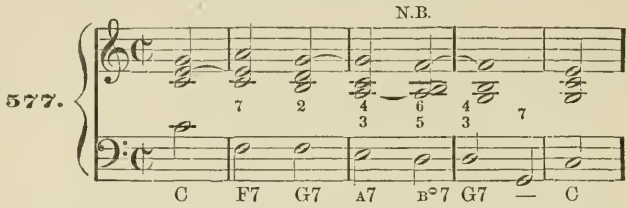
576.



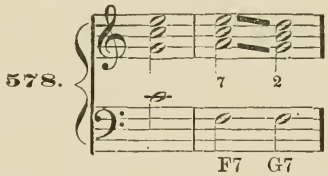
This manner of Seventh accord succession does not permit working out further than N.B., at which point the cadence begins.

The same succession commencing with the *fifth* as upper voice in the prepa-

ration-triad, may be set forth just as far as the preceding (N.B.), but beyond that point faults arise if *three* voices are caused to fall at once, *e. g.*



Commencing with the *third* as upper voice in the preparation-triad, and faults arise immediately (see Ex. 578.) The two positions preceding (Examples 576 and 577) are the only ones usable when three voices fall simultaneously.



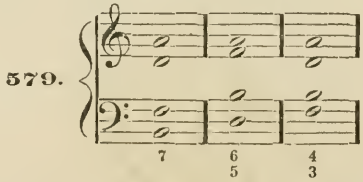
Thorough practice of Examples 569 to 577 in writing and playing in all the different keys should here follow, to the end that these most vigorous of dissonant accords may be perfectly understood and practically in hand.

In compositions of the present day they are less and less employed, chiefly on account of the difficulty of their manipulation,—therefore, all the more reason for their careful study.

SEVENTH ACCORD UPON THE LEADING-TONE OF A MAJOR MODE.

The treatment of that Seventh accord which occurs upon the leading-tone of a major mode demands a few remarks.

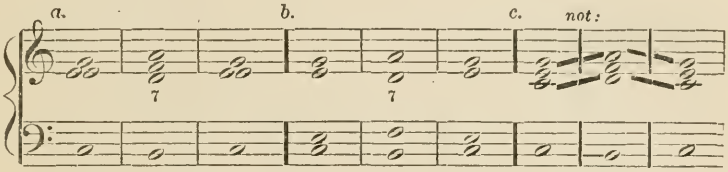
In the key of C major this Seventh accord consists of the tones (B, D, F, A) and its intervals are a *minor third, minor fifth* and *minor seventh.* Its most natural resolution is to the Tonic-triad of its own mode, and, when given that resolution, the position of this Seventh accord is most acceptable when the original *seventh* appears as upper voice, *e. g.*



The *entrance* of this chord is *free,* inasmuch as it contains a diminished triad, and its entrance after any triad in its own mode is not difficult enough to

require any remark excepting that after the Tonic-triad. With this entrance, faults easily arise, to avoid which, the following is to be observed. First of all, in order that the Seventh accord may appear with the original *seventh* as upper voice, the Tonic-triad will be best arranged if its *fifth* is the upper voice, as in the succeeding examples. If the *Fundamental* position of the Seventh accord is to enter after this triad, it will be found necessary to double the *third* of that triad (*a*, *b*, Ex. 580) in order to avoid the faults alluded to,—parallel fifths as at *c*, Ex. 580. The same is to be remarked concerning the *resolution* back to the Tonic-triad, *e. g.*

580.

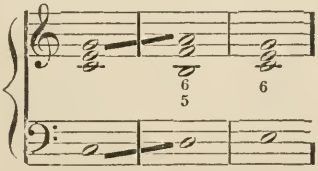


The entrance of this Seventh accord in its *Fifth-Sixth* position after the same triad is especially worthy of comment since it yields a remarkable instance of *parallel fifths*,—remarkable, because they are in this case entirely free from any crude or unpleasant effect.

Through all these pages, parallel fifths, as well as octaves, have been strenuously forbidden, for the very simple reason that their effect in general is crude and disagreeable according to the musical instinct and intelligence of the best authorities.

Rare examples of parallel fifths are to be found in the works of the great masters, but, in every instance they have been treated with masterly hands, so that their effect in these isolated instances is entirely acceptable. It very naturally follows that if in their use it requires the treatment of a *master's* hand to evade their consequent bad effect, such progressions are very properly excluded from the efforts of *pupils*. For this reason we have forbidden their use from the beginning to the end, and abided thereby in all our exercises, with the one exception we now present:

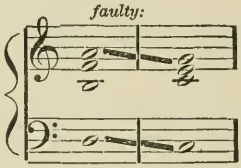
581.



Another feature which makes this example all the more striking is the occurrence of the parallel fifths in the *outer* voices, the most prominent of all. It ought to be remarked that the exception here given, is characteristic of this chord only and in this one arrangement of its voices. The *resolution*, howev-

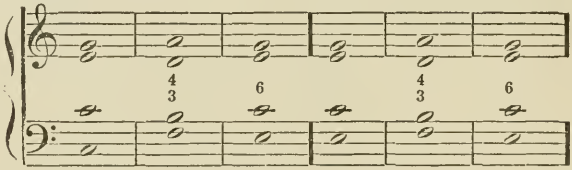
er, back to the same position (Fundamental) of the Tonic-triad is crude and unnatural, (see Ex. 582) and is, therefore, not used. The resolution in Example 581 will be found correct.

582. *faulty:*



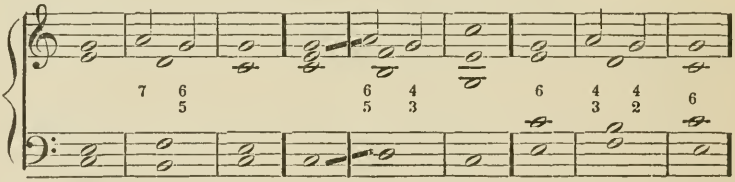
The entrance of the *Third-Fourth* position after the Tonic-triad may take place in the following manner:—

583.



To facilitate the resolution of this Seventh accord, the original *seventh* may be lowered a degree, while the other voices remain; this results in a Dominant Seventh accord which is less confined in its progressions, *e.g.*

584.

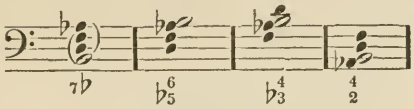


CHAPTER XXXI.

THE DIMINISHED SEVENTH ACCORD.

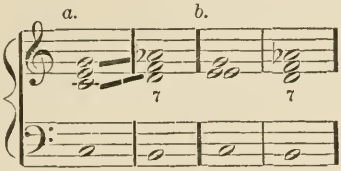
We have already alluded many times to the milder major mode, *i.e.*, a major mode with a *minor* sub-dominant-triad.

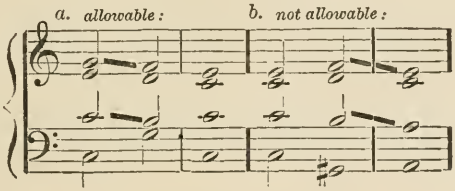
If the Seventh accord standing on the leading-tone of the Normal major mode appear, arranged according to this milder mode, it will consist of the tones B, D, F, A♭, and contain as intervals a *minor third, minor fifth* and *diminished seventh.* Taking its name from the last mentioned interval the combination is denominated as above. This Seventh accord can be used equally well in all positions, and, on account of containing a diminished triad (two such in fact), it is allowed to *enter free.* Its positions are as follows:—

585. 

ENTRANCE.

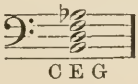
A few remarks in connection with its *entrance* after the Tonic-triad will be sufficient to indicate the manner of its entrance after other triads. In Example 586, the entrance at *a*, though sometimes used, is not to be recommended on account of the fifths, notwithstanding the fact that the second is a *minor* fifth.* By doubling the *third* of the triad, the leading, in the entrance of the Seventh accord, will be purer, (*b*), *e. g.*

586. 

587. 

RESOLUTION.

The most natural resolution of the Diminished Seventh accord, upon the leading-tone, is to the Tonic-triad, *major* or *minor*. To demonstrate the voice-leading we have recourse again to our former-used mechanical process:—

588. 

The triad contains no tone which has been heard in the dissonant accord, consequently every voice is to be resolved *degree-wise*. This cardinal principal cannot be too often repeated:—

EVERY DISSONANCE MUST BE RESOLVED DEGREE-WISE.

The leading of the voices in the resolution to the Tonic-triad is very similar to that in the resolution of the Dominant Seventh accord to the triad on the

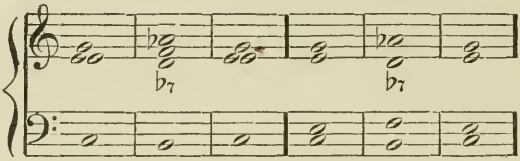
* The best masters frequently use fifth-successions, provided that the first is a major and the second a minor fifth, (*a*, Ex. 587), but not the reverse (*b*) often enough to establish a license.

sixth degree, (see page 185). The *fundamental* and *third* are to be led upward, and the *fifth* and *seventh* downward, otherwise, fifth-successions arise, *e. g.*

589.

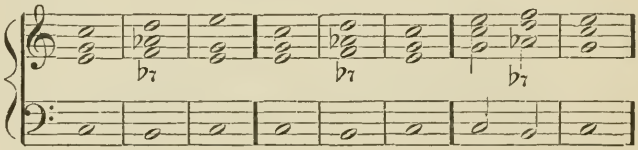
We may now present an example in which the Diminished Seventh accord is caused to enter *after* and resolve *to* the Tonic-triad, thus:—

590.



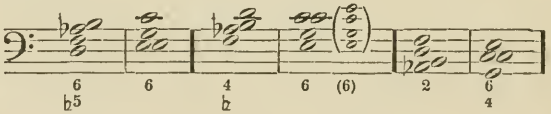
If the Tonic-triad appears with its *octave* or *third* as upper voice, there is less liability of faulty voice-leading, both in the entrance and resolution of this Seventh accord, *e. g.*

591.



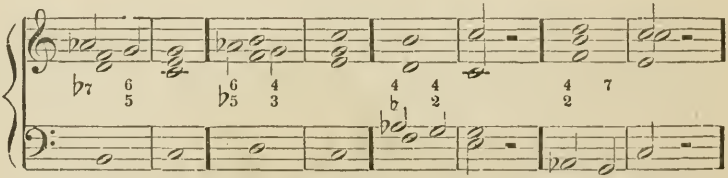
In accordance with the voice-leading discussed above, the resolution of the Fifth-Sixth, Third-Fourth and Second positions of the Diminished Seventh accord will be as follows:—

592.



In order to facilitate the resolution of a Diminished Seventh accord, the *seventh* may be lowered a diatonic half-step resulting in a Dominant Seventh accord, *e. g.*

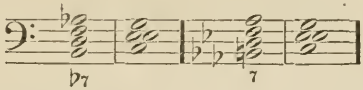
593.



Upon the leading-tone in a minor mode a similar Diminished Seventh accord may appear. The conditions of its entrance and resolution are precisely the same as those already discussed.

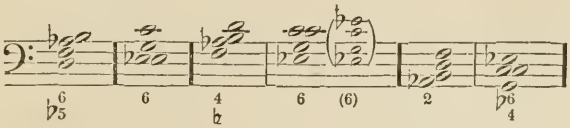
Similar-named modes have one and the same Diminished Seventh accord, as seen in Example 594. Its most natural resolution is to the Tonic-triad of either mode, *e. g.*

594.



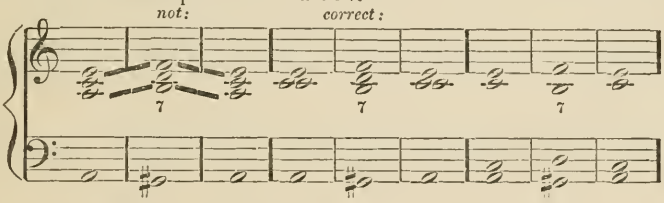
The resolution of the Fifth-Sixth, Third-Fourth and Second positions to the minor triad will be as follows:—

595.

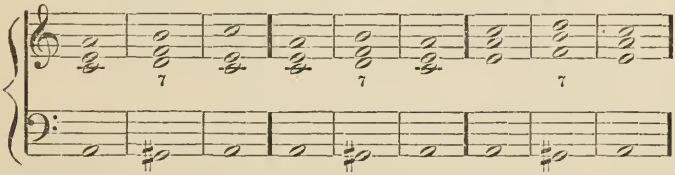


The *entrance* of the Diminished Seventh accord upon the leading-tone of the mode of A minor after the Tonic-triad, and its *resolution* to the same chord is shown in Examples 596 and 597.

596.

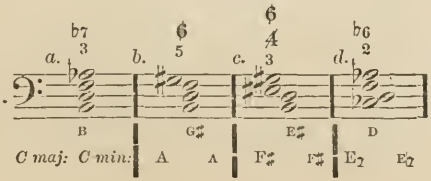


597.



I. A Diminished Seventh accord, in whatever position it is placed, (7, $\frac{6}{5}$, $\frac{4}{3}$, or 2) is formed of tones which, *in sound*, stand in minor thirds one above the other. These same tones may be *written* in a variety of ways, but in *sound* they present only the interval of minor thirds. This ambiguity especially adapts this chord to the field of Modulation. In the following table, the *same sounds* are so written as to present four different Diminished Seventh accords. Their *fundamentals* are seen in the first line of letters underneath, and in the next line, the *fundamentals* of the respective Tonic-triads, major and minor, to which the Seventh accord will most naturally resolve:—

598.

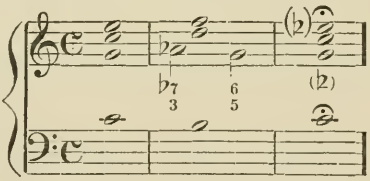


The object of this alteration is as follows:—The Diminished Seventh accord always stands upon the leading-tone of a major or minor mode, therefore, in order to resolve it to the Tonic-triad of any chosen mode, the combination of tones forming the Seventh accord should be so written as to cause it to stand upon the leading-tone in that mode to which it is proposed to resolve. Thus, if we desired to resolve the combination of tones at *a*, Example 598, to the Tonic-triad of A major or A minor we should *write* them as at *b*, of the same example. The *fundamental* in that case would be G♯, which is the leading-tone in the modes of A major and A minor, and the chord so *written* would most naturally resolve to the Tonic-triad of those modes. The same sounds written, as at *c* or *d*, resolve to still different triads, so that in all, a total of eight different resolutions becomes possible through these simple enharmonic changes, or, in other words, each member or sound in a Diminished Seventh accord can be regarded as the *leading-tone* to some major or minor mode, and the chord so written, without changing its sound, as to enable it to resolve naturally into four different major and four different minor Tonic-triads.

To illustrate this more perfectly we will make use of the Diminished Seventh accord, in the above table, in a few modulations, and first, as written at *a*, (B, D, F, A♭).

To make the modulation more decided, the original *seventh* will each time be lowered a diatonic half-step, resulting in a Dominant Seventh accord, *e. g.*

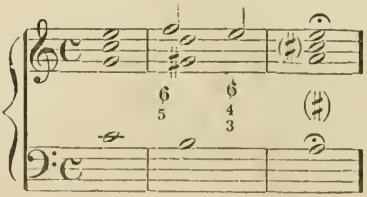
599.



In the above example, the Diminished Seventh accord is so written as to cause it to stand upon the leading-tone (B) in the modes of C major or C minor. Its resolution is therefore most natural to the Tonic-triads of those modes.

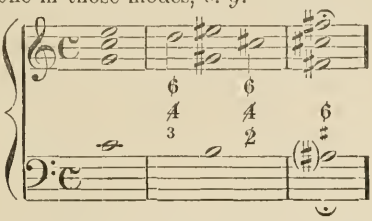
Again, if the Diminished Seventh be written as at *b*, Ex. 598, (G♯, B, D, F), its *fundamental* (G♯) will be the leading-tone in the modes of A major or minor; the modulation in the following example will consequently be from C major to A major or minor, *e. g.*

600.



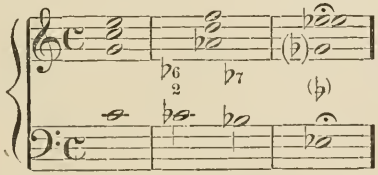
Again, if the tone F of the chord, as at *a*, Example 589, be regarded as a leading-tone, it will be found necessary to write the chord as at *c*, in the same example, (E♯, G♯, B, D), in order to use the same sounds with that leading-tone as the *fundamental*. The Diminished Seventh accord expressed in this wise will most naturally resolve to the Tonic-triads of F♯ major or minor, E♯ being the leading-tone in those modes, *e. g.*

601.



Finally, if the next to the lowest tone of the chord at *a*, Ex. 598, be considered as a leading tone, and used as the *fundamental* of a Diminished Seventh accord, the chord will necessarily be expressed by the letters (D, F, A♭, C♭), and as D is the leading-tone in the modes of E♭ major or minor, the resolution to the Tonic-triads of those modes will naturally follow, *e. g.*

602.



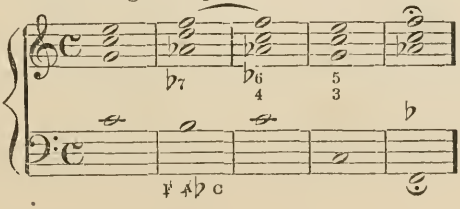
As will be seen from the foregoing examples, four different Diminished Seventh accords,—composed of the same sounds, however,—each in a different position, may enter after the same triad and resolve to four different keys.

Thus far we have used only the most natural resolution of the Diminished Seventh accord. We remark now that other resolutions are possible.

II *a. Any tone of a Diminished Seventh accord can be bound and the other tones of the Seventh accord resolved to that* MINOR *triad of which this bound tone is the fundamental.*

For example, if the F in the chord at *a*, Example 598, be bound, and the chord resolved to that minor triad of which F is the *fundamental*, the leading will be as in the following example:—

603.



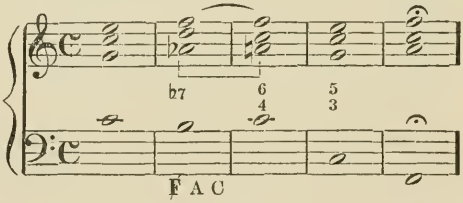
Our mechanical process comes again into application. The letters common to the Seventh accord and the triad of resolution are to be stricken out and these tones first bound; after which, the progressing voices are to resolve *degree*-wise to their places in the new chord. In the present case, therefore, the tones F and A♭ are to be bound and the B and D must resolve to the remaining tone of the triad (C). The triad of resolution here appears in its Fourth-Sixth position, consequently, if it be proposed to establish that key it is necessary to add the remainder of the cadence, as above.

II*b*. *Any tone of a Diminished Seventh accord can be bound and the other tones resolved to that* MAJOR *triad of which this bound tone is the fundamental.*

As an illustration, we will bind the same tone (F) as in the preceding example, and the present resolution will be to that major triad of which F is the *fundamental* (F, A, C).

In resolving a dissonant accord, those tones which are to be chromatically altered are to be retained in the same voice. Cross-relations easily arise if this rule is not adhered to. In the resolution of the Seventh accord, B, D, F, A♭, to the major triad, F, A, C, the F will be bound, the A♭ changed in the same voice to A♮, and the B and D resolved to C, *e. g.*

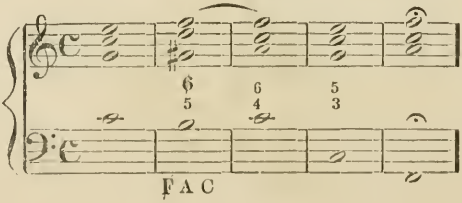
604.



Inasmuch as the A♭ in the above Diminished Seventh accord is the dissonant proper, (original *seventh*), and is here resolved *upward* to A♮, it is deemed more correct by some to write this tone as G♯, (see following example), as the *tendency* in the resolution of a *flat* is *downward*, while that of a *sharp* is *upward*. This is often indeed a guide to correct notation, but we are always permitted to *chromatically* alter a tone, thereby not changing its staff-degree, as in the above case, without violating rules or good sense.

We present both notations, however, remarking that both are correct.

605.



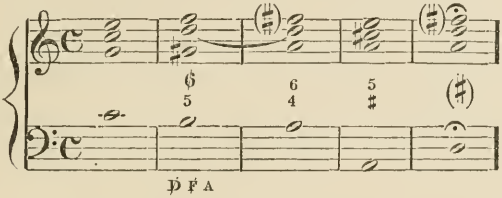
Although no universal rule can be given, yet, if the following be observed, the notation cannot be far from correct:—

A Diminished Seventh accord is to be written in that way which will best preserve its connection with its preceding and succeeding accord.

Thus, in the present case, if the triad of C minor preceded, we should most certainly write A♮ in the Diminished Seventh accord, because that tone is common to the mode of C minor, while G♯ would be entirely foreign. If C major precedes, as here, then either A♭ or G♯ may be used with equal propriety since neither are common to the mode of C major.

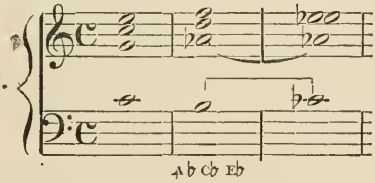
If we bind D, in the same Seventh accord, to become the *fundamental* of a triad of resolution, the leading will be, as follows, to a major or minor triad at will, *e. g.*

606.



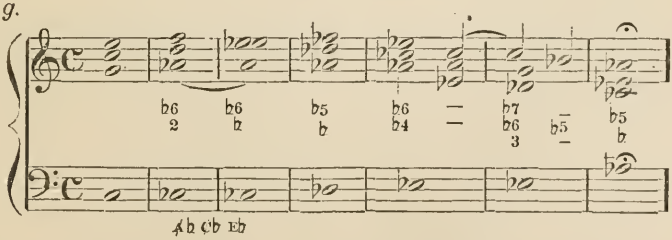
If A♭ be bound as the fundamental of a minor triad of resolution the leading will be to A♭, C♭, E♭, *e. g.*

607.



The bracket in Example 607, calls attention to the enharmonic change (B to C♭). This is to be avoided wherever possible, therefore, in the present case instead of B, in the Diminished Seventh accord, it is decidedly better to write C♭, *e. g.*

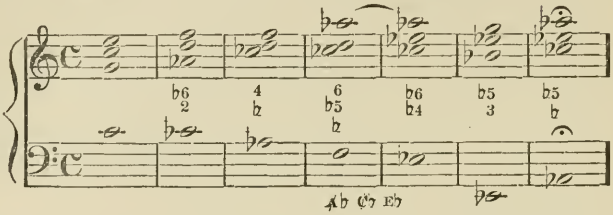
608.



The Seventh accord here resolves to a Third-Sixth accord. The resolution to a Fourth-Sixth accord may be gained, as in previous examples, by simply

changing the position of the Seventh accord until it is so situated as to allow it to resolve degree-wise into such a triad, for example:—

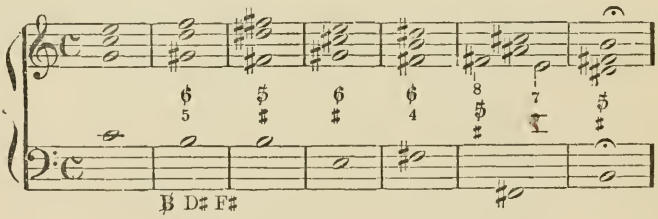
609.



Finally, if we regard the lowest tone (B) of our Diminished Seventh accord as the *fundamental* of a major triad (B, D♯, F♯), the Seventh accord would necessarily be written G♯, B, D, F, and not B, D, F, A♭, because the A♭ could not resolve *degree-wise* to any tone of the triad referred to.

The resolution in Example 610, takes place to the Fundamental position of the triad; but, notwithstanding this fact, the repose is not sufficiently determined, therefore the added cadence. This prolonged modulation is all the more important on account of the abruptness in the change of key, (C to B), as it helps to efface the remembrance of the previous one, *e. g.*

610.



Although we have used major and minor triads of resolution at random in the above examples, it will be found that both may be used in each instance, so that thus far we have indicated modulations by means of the same Diminished Seventh accord, though differently written, to eight different major and eight different minor keys, a total of *sixteen, viz:*—

I. By considering each member of the Diminished Seventh accord as a leading-tone and so writing the chord as to allow it to resolve to the major or minor Tonic-triad of that mode to which the chosen leading-tone belongs. This yields modulations to four major and four minor keys.

II. By considering each member of the Diminished Seventh accord as the *fundamental* of a major or minor triad, binding that tone and resolving the remaining tones to the triad (major or minor) of which this tone is the *fundamental.* This also yields modulations to four major and four minor keys; or in all a total of sixteen. In that which is to follow, the same Diminished Seventh accord will be used to modulate to the four major and four minor tri-

ads yet wanting in the twenty-four modes. Modulations to their enharmonic substitutes, for instance, to C♭ major instead of B major, may also be effected by simply writing the Diminished Seventh accord in such a manner as to cause it to stand upon the leading-tone of the desired key.

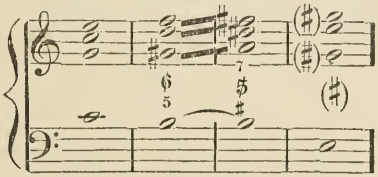
III. *Any member of a Diminished Seventh accord can be regarded as the fundamental of a Dominant Seventh accord; i. e.*, a tone may be bound, and, by progressing the other three voices a half-step upward (sometimes a diatonic and sometimes a chromatic half-step), a Dominant Seventh accord is gained whose *fundamental* is the bound tone referred to.

Thus, four different Dominant Seventh accords are easily reached from any Diminished Seventh accord, which have a *primary* resolution, to four major and four minor keys.

Of the other multifarious resolutions of the Dominant Seventh accord we will only remark, that they are all applicable here, as elsewhere.

In the following examples we will make use of the same Diminished Seventh accord as before, and first regard the tone B as the *fundamental* of a Dominant Seventh accord. We first bind that tone and then progress the three remaining tones (G♯, D and F) of the Diminished Seventh accord a half-step upward to A, D♯ and F♯ respectively, which tones, together with the B, form the Dominant Seventh accord to E major or minor, *e. g.*

611.

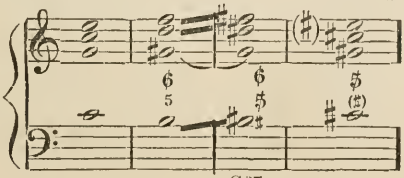


B7

In the Diminished Seventh accord here, we have written G♯ instead of A♭ for the reason that G♯ lies in nearer connection with the mode of the chords following; the A♭ would have been quite foreign. It will be found practical to first write down the tone to be bound, and, having considered of what tones the Dominant Seventh accord will be composed upon this bound tone as *fundamental*, then write the Diminished Seventh accord in that way which will best preserve its connection with the preceding and following accords.

If the G♯ in the same Diminished Seventh accord be bound and the remaining tones raised a half-step the result will be the Dominant Seventh accord G♯, B♯, D♯, F♯, which resolves primarily to the triads of C♯ major or minor, *e. g.*

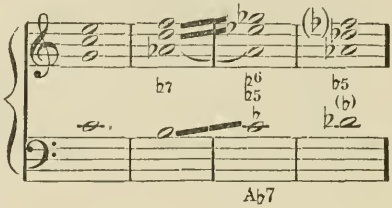
612.



G♯7

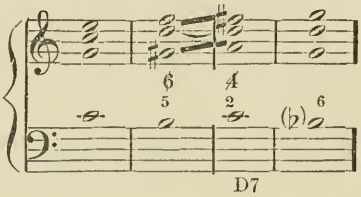
In Example 613, A♭, instead of G♯, is regarded as the *fundamental* of a Dominant Seventh accord. The chord, therefore, consists of the tones A♭, C, E♭, G♭, and resolves to D♭ major or minor, *e. g.*

613.



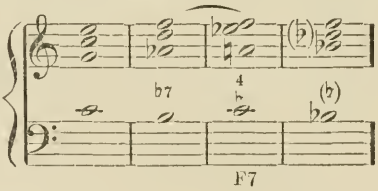
If D, of the same Diminished Seventh accord, be bound and become the *fundamental* of a Dominant Seventh accord through the elevation of the other voices a half-step, that Dominant Seventh accord will consist of the tones D, F♯, A, C, and naturally resolve to G major or minor, *e. g.*

614.



Finally, if F be bound and the remaining voices progressed a half-step upward, the result will be the Dominant Seventh accord, F, A, C, E♭. Its primary resolution is to the triad of B♭ major or minor, *e. g.*

615.

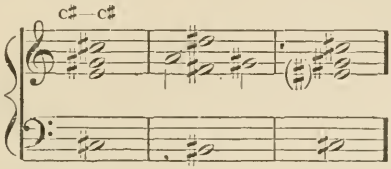


We have, so far, caused the same Diminished Seventh accord and its enharmonic metamorphoses to enter after the triad of C major, and we have succeeded by means of the three methods of treating this one accord (see I, II, III), in effecting modulations to every one of the twelve major and twelve minor keys. From this, it will at once be seen what a potent agent this accord constitutes in the field of Modulation. It will also be seen that thorough exercise in writing and playing should here follow, and to the end that the subject may be made still clearer we will choose another triad than C major, after which, to enter and resolve a Diminished Seventh accord. I. We will take, for example, the triad of C♯ minor, and, having caused the Diminished Seventh

accord which stands upon the leading-tone of this mode to enter (B♯, D♯, F♯, A), we will first regard each tone in turn as the leading-tone to a major or minor Tonic-triad.

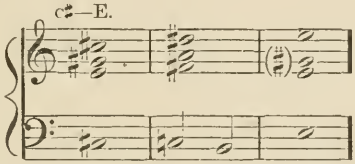
If the Diminished Seventh accord be so written as to stand upon B♯ as its *fundamental*, it will most naturally resolve to the triads of C♯ major or minor, *e. g.*

616.



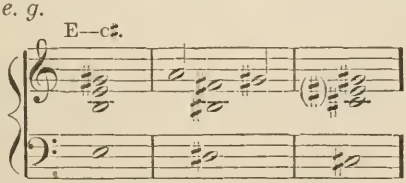
Regarding D♯ as a leading tone, the Seventh accord will be written D♯, F♯, A, C, and will resolve to that major or minor key in which D♯ is the leading-tone,—to E major or minor, *e. g.*

617.



Having modulated from C♯ minor to E major, the next proposition, for the sake of practice as well as the musical effect, will be to modulate back to the starting-point again (C♯). This is to be effected by means of the Diminished Seventh accord which stands upon the leading-tone of E major, (D♯, F♯, A, C), that being the triad from which the return modulation begins. The modulation will be shortened if this Diminished Seventh can be so *enharmonically* changed as to cause it to stand upon the leading-tone of the objective key (C♯). Of the chord D♯, F♯, A, C, only one tone need be enharmonically changed to secure the chord desired, (C to B♯). The Diminished Seventh accord will then consist of the tones B♯, D♯, F♯, A, and will therefore resolve naturally to C♯ major or minor, *e. g.*

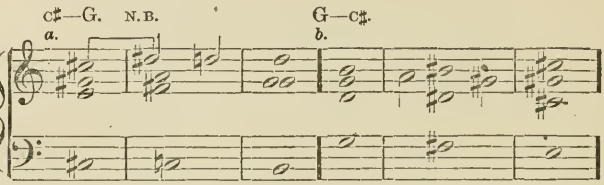
618.



In changing a Diminished Seventh accord *enharmonically*, as here, so as to adapt it to leading into a following chord, due care must be taken that the enharmonic change does not produce unnatural voice-leading for the chord preceding.

Example 619, at *a*, uses the F♯ as a leading-tone, and, through a Diminished Seventh accord upon that tone, a modulation is effected to G major or minor. The return from G major to C♯ minor is effected by means of a Diminished Seventh accord upon F♯, the leading-tone in G major. The chord is formed of the letters F♯, A, C, E♭, but by enharmonically changing the E♭ to D♯ and C to B♯, we shall have the Diminished Seventh accord B♯, D♯, F♯ A, which leads directly to C♯ minor, (*b*).

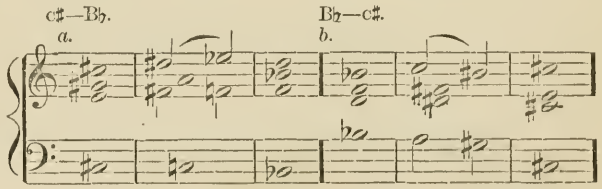
619.



The D♯, at N.B., (619) should properly be E♭, if F♯ is considered as the *fundamental*, of the Seventh accord, (F♯, A, C, E♭), but if E♭ were used here, the voice-leading in the Soprano (see bracket) would then be C♯ to E♭, a *diminished third*, therefore an unmelodic progression. We are, consequently, compelled to write the accord as above.

If we use A, of our Diminished Seventh accord, as a leading-tone, the chord will be A, C, E♭, G♭, and resolve to B♭ major or minor. The immediate entrance of this chord after the triad of C♯ minor would contain unnatural progressions, hence the enharmonic changes (D♯ to E♭ and G♭ to F♯) in the following example, (620), at *a*. The modes of C♯ minor and B♭ major are six relative degrees apart, therefore, if such a distant modulation is to be effected through one chord only, it is to be expected that more than ordinary means will be employed thereto. The return modulation (B♭—c♯) is made through the Diminished Seventh accord upon A, the leading-tone in B♭ major; such changes are made as are necessary to resolve it directly to C♯ minor, (*b*).

620.

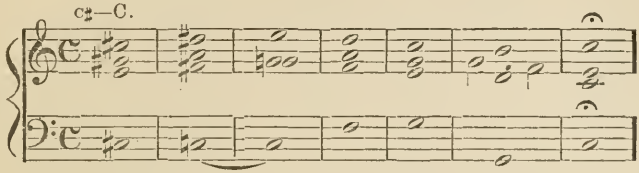


Of course there is no absolute necessity of using such abrupt modulations as in Example 620, for the same keys could be reached according to the more natural methods already described. The proposition here was to regard each member of the Diminished Seventh accord (B♯, D♯, F♯, A) as a leading-tone, and then resolve the accord to the Tonic-triad of that major or minor mode to which the chosen leading-tone belonged. This necessitated the above example

II. According to this method of treatment (see pages 213–16) each tone of the Diminished Seventh accord will in turn be regarded as *fundamental* of a major or minor triad to which triad the other tones will resolve.

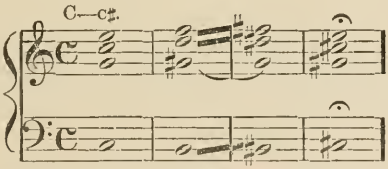
If we were to bind B♯, the triad of resolution would be B♯, D×, F×, a Tonic-triad which is never used. We therefore take C♮, (the enharmonic substitute of B♯) and, binding that, resolve the other tones (— D♯, F♯, A) of the Diminished Seventh accord to the major triad of which C is the *fundamental* (C, E, G).

621.



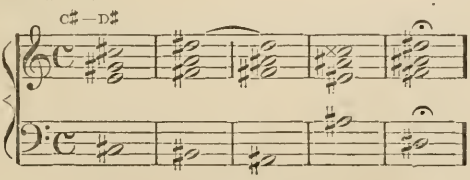
The modulation from C major back to C♯ minor is to be effected by means of the Diminished Seventh accord standing upon the leading tone to C major,— B, D, F, A♭. As A♭, however, is quite foreign to the objective key, its enharmonic substitute (G♯) should be used here. Of the chord B, D, F, G♯, the G♯ may be bound as the *fundamental* of the Dominant Seventh accord to C♯ minor, the other tones (B, D, F —) being raised a half-step to complete the chord, G♯, B♯, D♯, F♯, (III, pages 217–18). This accord leads direct to the new key, *e. g.*

622.



In the following example, the D♯ of the Diminished Seventh accord upon the leading-tone of C♯ minor is bound and regarded as the fundamental of a minor triad (D♯, F♯, A♯).

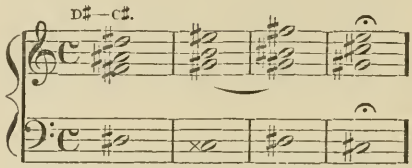
623.



The modulation each time, whether *from* or *toward* C♯ minor, is effected by means of that Diminished Seventh accord which stands upon the leading-tone of the commencing key. The return, therefore, from D♯ minor will be through

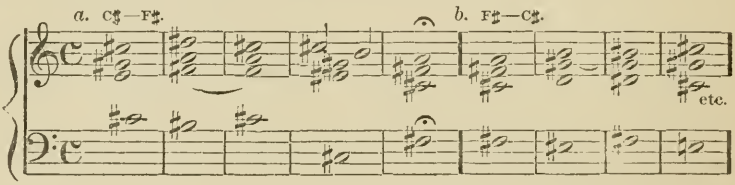
the Seventh accord C𝄪, E♯, G♯, B. The G♯ (Dominant to C♯) may again be bound, as in Example 624, and the tones, C𝄪, E♯ and B raised a half-step, thus forming that Dominant Seventh accord which resolves to C♯ major or minor, *e. g.*

624.



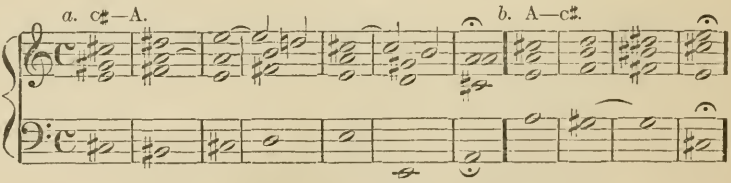
In Example 625 at *a*, the F♯ is bound as the *fundamental* of a minor triad (F♯, A, C♯). The return (*b*) from F♯ minor will be, as before, through the Diminished Seventh accord upon its leading-tone (E♯, G♯, B, D), which, converted into a Dominant Seventh by binding G♯ and raising the other tones a half-step, will lead to the desired key, (C♯ minor), *e. g.*

625.



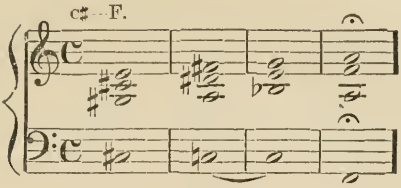
Finally, A is bound in Example 626 at *a*, and the other voices resolved to the major triad, A, C♯, E. The return modulation (*b*) is effected by means of the Diminished Seventh accord, G♯, B, D, F, the G♯ being bound and the other tones raised a half-step, thus forming the Dominant Seventh accord to C♯ minor or major, *e. g.*

626.



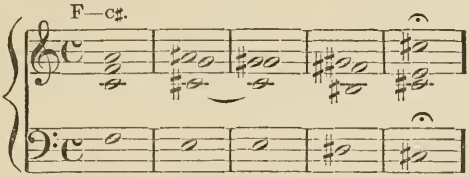
III. In the third method of treatment, each tone of the same Diminished Seventh accord (B♯, D♯, F♯, A) will in turn be regarded as the *fundamental* of a Dominant Seventh accord. First, if B♯ be bound and the other tones raised a half-step the chord will be B♯, D𝄪, F𝄪, A♯, a combination of letters never used. Instead of B♯, therefore, its enharmonic substitute, C, should be used. Upon binding C and raising the other tones a half-step, the result will be the Dominant Seventh accord to F major, *e. g.*

627.



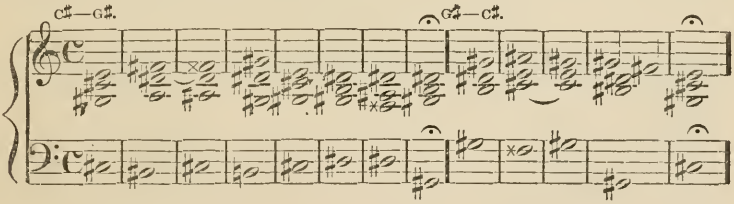
The return modulation, as usual, is to be effected by means of the Diminished Seventh accord upon the leading-tone of the starting key. That in F major is E, G, B♭, D♭, but as B♭ and D♭ are quite foreign to the objective key (C♯ minor) these tones are to be enharmonically changed to A♯ and C♯. The C♯ may then be bound as the *fundamental* of the triad of C♯ minor, and the other tones resolved to the E and G♯ of this triad, *e. g.*

628.



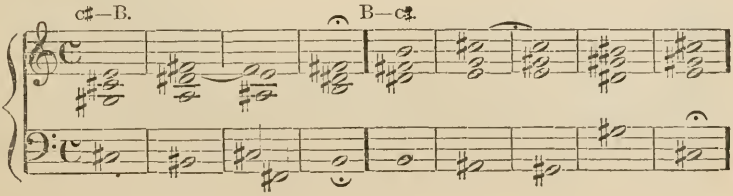
In Example 629, the D♯ is bound while the B♯, F♯ and A are progressed upward a half-step, resulting in the Dominant Seventh accord to G♯ major or minor. In returning, the C♯ of the Diminished Seventh accord upon the leading tone of G♯ minor (F×, A♯, C♯, E) is bound as the *fundamental* of the triad of C♯ minor, the objective key, *e. g.*

629.



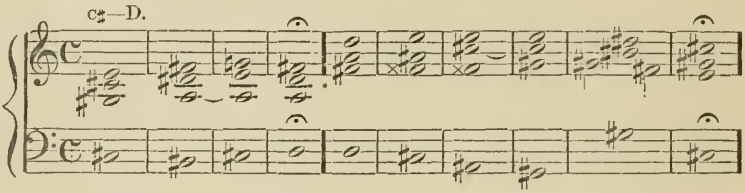
In Example 630, F♯ is bound as *fundamental* of the Dominant Seventh accord (F♯, A♯, C♯, E,) of B major or minor. Returning, the C♯ of the Diminished Seventh accord A♯, C♯, E, G, is again bound as *fundamental* of the C♯ minor triad, *e. g.*

630.



Binding A, as in Example 631, and raising the B♯, D♯ and F♯ a half-step, a Dominant Seventh accord will be gained, resolving to D major or minor. In returning, the Diminished Seventh accord upon the leading-tone of D major would be C♯, E, G, B♭. The G and B♭ are enharmonically changed to F𝄪 and A♯ in order to better adapt the chord to modulating to C♯ minor. The C♯ is then bound as *fundamental* of a minor triad (C♯, E, G♯), *e. g.*

631.



According to the foregoing, amply explained manner, the pupil should now take another triad, D major for example, as a starting-point, and with the Diminished Seventh accord in this mode (C♯, E, G, B♭) proceed as we have with those in the modes of C major and C♯ minor. The *order* of the chords in the various modulations with this Seventh accord is indicated in the following table:—

I.

D major triad,–Dim. 7th accord, whose Seventh falls a half-step resulting in a Dom. 7th accord,–Resolution to D major.	
D " " " " " " " " " " " " " " " "	F "
F " " " " " " " " " " " " " " " "	D "
D " " " " " " " " " " " " " " " "	A♭ "
A♭ " " " " " " " " " " " " " " " "	D "
D " " " " " " " " " " " " " " " "	B minor,
B minor " " " " " " " " " " " " " " " "	D major.

II.

D major triad,–Dim. 7th accord, of which one tone is to be bound as fundamental of the C♯ minor triad,–Cadence to C♯ minor,	
C♯ minor " " " " " " " " " " " " D major " "	D major:
D major " " " " " " " " " " " " E minor " "	E minor:
E minor " " " " " " " " " " " " D major " "	D major:
D major " " " " " " " " " " " " G " " "	G "
G " " " " " " " " " " " " D " " "	D "
D " " " " " " " " " " " " B♭ " " "	B♭ "
B♭ " " " " " " " " " " " " D " " "	D "

III.

D major triad,–Dim. 7th acc., of which one tone is to be bound as fundam'l of a following Dom:7th acc.,–Resolution to F♯ major	
F♯ " " " " " " " " " " " " " " " "	"resolution to D major–Cadence to D major:
D " " " " " " " " " " " " " " " "	"Dom:Seventh accord,–Resolution to A "
A " " " " " " " " " " " " " " " "	"resolution to D major, Cadence to D "
D " " " " " " " " " " " " " " " "	"Dom:Seventh accord,–Resolution to C "
C " " " " " " " " " " " " " " " "	"resolution to D major, Cadence to D "
D " " " " " " " " " " " " " " " "	"Dom:Seventh accord,–Resolution to E♭ "
E♭ " " " " " " " " " " " " " " " "	"resolution to D major,–Cadence to D "

The Diminished Seventh accord is each time to be that standing on the leading-tone of the mode from which the modulation starts, but, as we have already seen, enharmonic changes are often necessary, in order to adapt it to

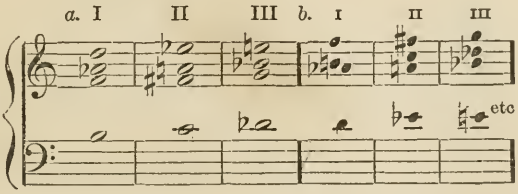
correct and natural voice-leading toward the objective key. Rather than use unnatural voice-leading, bind an enharmonic change, as in Example 620, for instance. The pupil is referred to the observation relative to the notation on page 215.

FURTHER TREATMENT OF THE DIMINISHED SEVENTH ACCORD.

In the foregoing examples, an entrance has been effected for only that Diminished Seventh accord, or its enharmonic metamorphosis, which stands upon the leading-tone in any chosen mode.

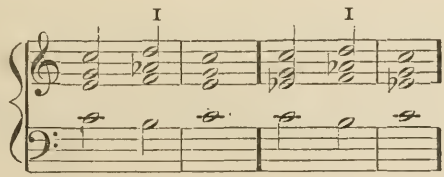
According to *sound*, there are only three different Diminished Seventh accords,—those situated upon three consecutive chromatic degrees; all others are simply duplications of these, in other positions, as will be seen by comparing I*a* and I*b*, etc., in No. 632.

632.



We remark now, that each of these three Diminished Seventh accords can enter after every existing major and minor triad. We will, for example, make use of the C major and C minor triads and enter first the accord at I, Example 632 *e. g.*

633.

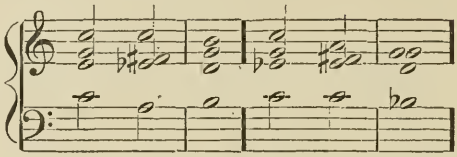


Although the Diminished Seventh accord is allowed to enter *free*. yet, for singers, the most natural entrance and resolution should always be sought out, otherwise great difficulty will be experienced in producing this accord with pure intonation. The entrance of that Diminished Seventh accord which stands upon the leading-tone, after the Tonic-triad, is the most natural and easiest to sing because each voice enters *degree-wise*. Therefore, in writing for vocal purposes, endeavor, as much as possible, to enter these accords after this manner.

In the following example, the Seventh accord at II, No. 632, is caused to enter after the same triads,—C major and C minor. It will be seen at once that the voice-leading is not as natural as in Example 633, (there all the voices entered degree-wise) on account of the spring C to A, although that progression is of itself perfectly natural. As the Seventh accord here consists of the

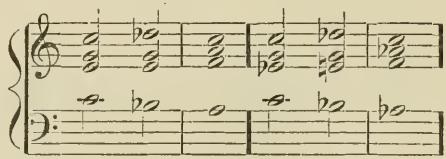
tones F♯, A, C, E♭, the resolution will naturally follow to G major or minor, F♯ being the leading-tone in those modes, *e. g.*

634.



Finally, the Seventh accord at III, (632), is to be entered after the same triads, and, standing upon the leading-tone (E) to F major or minor, its resolution will take place to those keys, *e. g.*

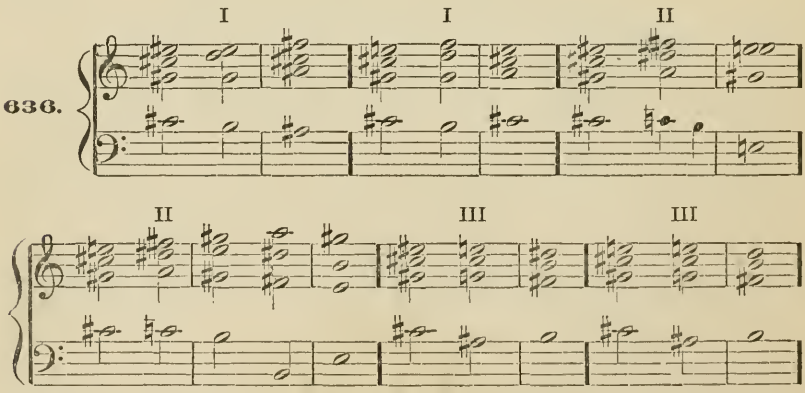
635.



We give now as a further guide to the pupils individual efforts, the entrance and resolution of the same Diminished Seventh accords (in *sound*) after the triads of C♯ major and minor.

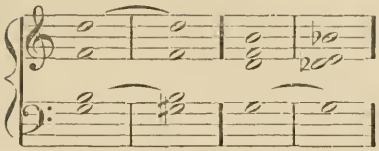
To prevent unnatural voice-leading, it is often necessary to *write* the Diminished Seventh accord different from its corresponding accord in Example 632. The resolution in each example is to that key in which the *fundamental* of the Seventh accord is the leading-tone. We have placed the *third* as upper voice of the triad; the *fifth* is less favorable:—

636.



The various *Seventh accords* common to the stem-tones of a major or minor mode may also, with good voice-leading, introduce a Diminished Seventh accord. Those successions are the best in which one or more of the tones may be bound. An example or two will be sufficient on this head.

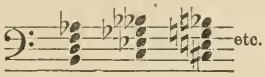
637.



SUCCESSION OF DIMINISHED SEVENTH ACCORDS.

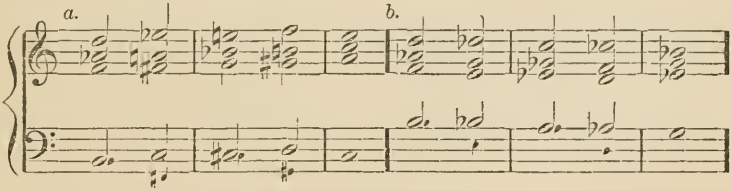
The proper manner of *writing* a succession of such Seventh accords is often a matter of perplexity. If the Fundamental positions succeed each other, as in Example 638, no connection between the chords is apparent.

638.



If the succession be a degree-wise elevation in half-steps, the chords should be so written, where possible, as to cause the *fundamental* to rise a *major fifth*, (*a*, Ex. 639). If the succession be a depression in half-steps, then the *fundamental* should fall a *major-fifth* (*b*). This will allow two of the four voices to remain upon the same staff-degree, requiring only a chromatic alteration. This yields at least an ideal connection. The dots (•) in the following example indicate the *fundamentals*.

639.

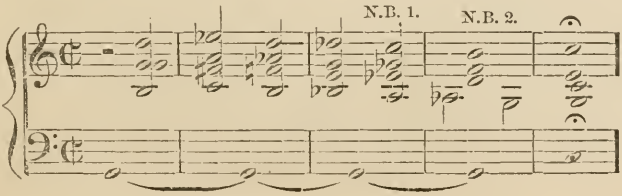


The difficulty of writing such passages will be much facilitated if the *fundamentals* are first temporarily (with pencil dots perhaps) indicated. Then, each voice of the chord is to progress degree-wise to the proper tones of a Diminished Seventh accord upon the indicated *fundamental*. Thus, two of the voices will each time progress a chromatic half-step, and the other two a diatonic half-step.

DIMINISHED SEVENTH ACCORDS IN AN ORGAN-POINT FORMATION.

As with all chords in general, so also a succession of Diminished Seventh accords may appear in an organ-point formation, *e. g.*

640.



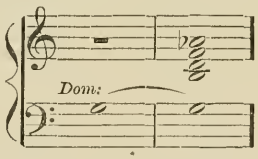
In the above example, the Diminished Seventh accords as far as N.B. 1, are written according to the principle laid down in Example 639. The chord at N.B. 1, consists of the tones A, C, E♭, G♭, therefore, A is the *fundamental.* Now, if this *fundamental* (A) were to fall a major fifth to D, and the chord at N.B. 2, *written* as if standing upon D, it would be as follows: D, F, A♭, C♭, and its natural resolution would be to E♮ major or minor. As it was our desire, however, to resolve to C major, it became necessary to so write the accord at N.B. 2, as to secure a natural leading to that key. The C♮, in the Seventh accord D, F, A♭, C♭, would not lead to C♮, therefore, we have written B in its stead. We see here that, as very much depends upon what is to follow, it is not always possible to write a succession of Diminished Seventh accords according to the above explained method, but in general it will be found useful in solving what is often a perplexing situation.

CHAPTER XXXII.

THE SO-CALLED CHORDS OF THE NINTH, ELEVENTH & THIRTEENTH.

When a Diminished Seventh accord, for example, that upon the leading-tone in the modes of C major or minor, (B, D, F, A♭), appears over the Dominant (G) of the same mode, there arises an *apparent* chord; *i. e.*, a combination of tones standing *third-wise*, one above the other, *e. g.*

641.



The combination consists of a *major third, major fifth, minor seventh* and *minor ninth,* and, from the last interval, is termed in most text books,

CHORD OF THE MINOR NINTH,

the figuring is usually given as follows:— $\begin{matrix}\flat 9\\ 7\\ 5\\ 3\end{matrix}$ or $\begin{matrix}\flat 9\\ 7\\ 3\end{matrix}$ or $\begin{matrix}\flat 9.\\ 7\end{matrix}$ Many rules have been given for its entrance, progression and inversion, and the matter in various ways made complicated and obscure. Such a combination is regarded in this work as an

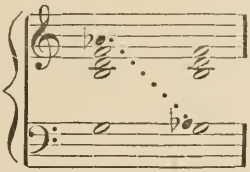
ORGAN-POINT FORMATION.

The theory of its being a *chord-formation,* in the proper sense of that term, is to be totally rejected. That which is to be rationally acknowledged as a determined chord-formation, and therefore entitled to a determined name, is a combination of three or four tones, which, in their closest possible position with the *fundamental* as Bass, stand *only third-wise* above each other. As such, we recognize only *triads* and *seventh-accords,* with their respective in-

versions. An accord-formation in its close position never exceeds an octave in compass.

The above combination or *seeming* accord, G, B, D, F, A♭, is not in its closest position, for the A♭ may be placed an octave lower without going below the regarded fundamental (G), thus, still farther condensing the arrangement of the tones, so that they do *not* stand *third-wise* one above the other, *e.g.*

642.



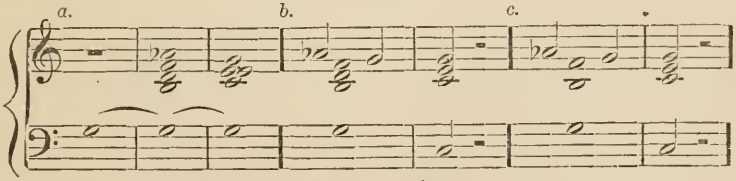
Therefore, as just remarked, the combination is to be regarded as an organ-point, the Bass (G) being the sustained tone and the upper voices a Diminished Seventh accord.

The treatment of the *upper* chord is exactly the same as already discussed. Whatever has been done previously with the entrance, progression or resolution of a Diminished Seventh accord is equally capable of performance here, only remembering that the last chord in the organ-point must form an intelligible harmony (*i.e.*, an acknowledged chord formation) with the sustained tone.

REMARK.—It should be remarked here that greater freedom is allowed, in modern compositions, in the *entrance* of an organ-point. Thus, while according to the stricter rules of classic composition, only triads and the mild dissonances, to which the sustained tone is common, may begin an organ-point, we are allowed in these freer rules to *begin* such a formation with the harsher triads and Seventh accords to which the sustained tone is sometimes *not* common. Examples are seen in the following pages.

At *a*, Example 643, we give the ordinary resolution of the Diminished Seventh accord, B, D, F, A♭,—to C, E, G, an intelligible harmony with the sustained tone. At *b*, the *ninth* is caused to fall a diatonic half-step, resulting in a Dominant Seventh accord, and at *c*, the *third* in the upper chord is omitted, thereby making the organ-point four-voiced, *e.g.*

643.

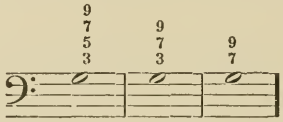


We have spoken of that Seventh accord which stands upon the leading-tone in a major mode, (pages 206-8). If this accord (in the mode of C major, B, D, F, A,) appear above the Dominant (G) of the same mode, there arises the so-called

CHORD OF THE MAJOR NINTH.

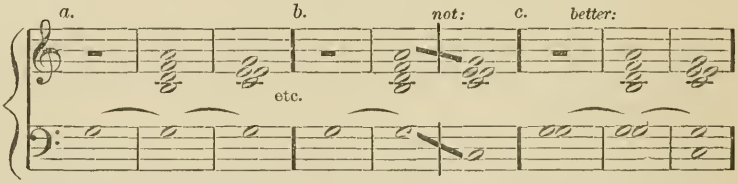
It contains as intervals, a *third, fifth, seventh* and *major ninth,* taking its name from the last. Its figuring is given as follows:—

644.



This combination is just as little a chord-formation as is the so-called chord of the Minor Ninth, (see above). It is simply an *organ-point* in which G is the sustained tone. The treatment of the upper chord is the same as that already explained, (pages 206-8), and its effect is best with the original *seventh* as upper voice, *e. g.*

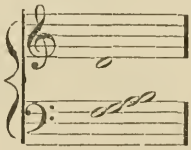
645.



The resolution at *b,* Example 645, although sometimes used, is certainly not correct, because the organ-point does not end with an acknowledged chord-formation. Through the aid of a fifth voice, as at *c,* the end is correctly effected the same as at *a.* The *third* of the upper chord may be best omitted if the organ-point is to have only four voices.

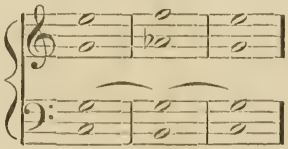
That none of the combinations referred to at the beginning of this chapter are *chord-formations,* is proven in the fact that they cannot be inverted, as is the case with triads and Seventh accords. For example, the so-called chord of the Major Ninth may be made, by inversion, to assume the following combination, which is striking if nothing more, *e. g.*

646.



The following example (647) *appears* to be an inversion of the so-called Chord of the Major Ninth, with the original *third* of the upper chord omitted. This apparent inversion is caused by the sustained tone being used as a *middle-voice;* therefore, the procedure, as before, is an organ-point.

647.



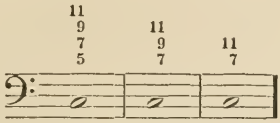
It will be self-understood that any other tone than the Dominant can be used as the sustained tone, over which can appear any one of the combinations treated in this chapter.

When the Dominant Seventh accord of any major or minor mode appears over the Tonic of the same mode there arises the so-called

CHORD OF THE ELEVENTH.

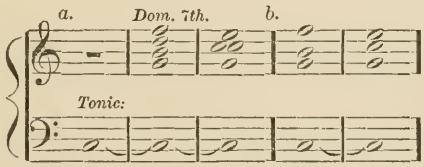
Its intervals are a *fifth, seventh, ninth* and *eleventh,* and its figuring is usually given as follows:—

648.



This is simply an organ-point similar to the previously-named combinations. The upper chord is to be treated like any chord of the Dominant Seventh. At *b,* Example 649, the *fifth* in the upper chord is omitted, the member least missed when the organ-point appears four-voiced, *e. g.*

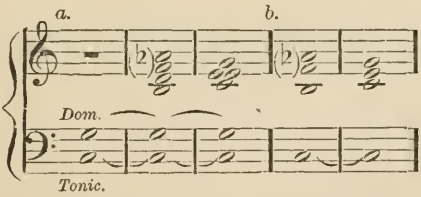
649.



THE SO-CALLED CHORD OF THE THIRTEENTH

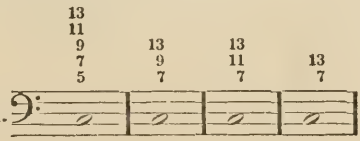
is simply an organ-point consisting of two sustained tones,—a Tonic and Dominant, -above which, appear either of the Seventh accords used in Examples 643 and 645. The treatment is as usual with those chords, *e. g.*

650.



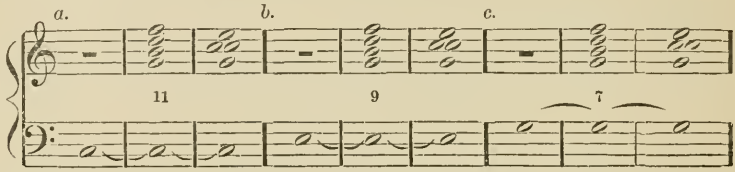
This organ-point may appear as at *b,*—with one of the sustained tones (Dom.) and the *third* of the upper chord omitted. The figuring of the above combination is usually given as follows:—

651.



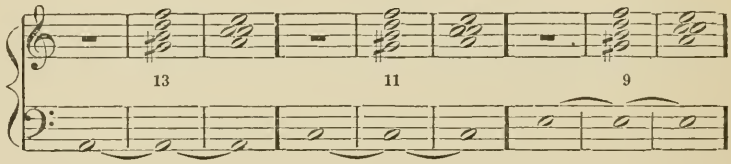
To further show the reasonableness of regarding the foregoing combinations as simply organ-points, we present in Example 652, a Dominant Seventh accord as upper harmony to which, with equal propriety, we may apply, as sustained tone, the *Tonic, third* or *fifth* of the same mode. At *a*, the so-called Chord of the Eleventh arises; at *b*, that of the Ninth, and at *c*, the ordinary Dominant Seventh accord with doubled *fundamental, e. g.*

652.



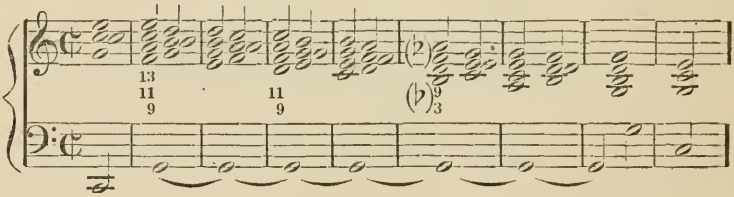
To a Diminished Seventh accord upon the leading-tone, for example, that upon G♯ in the mode of A minor, may be applied as sustained tone the *Tonic, third* or *fifth* of the same mode. The result is the so-called Chords of the Thirteenth, Eleventh and Ninth, respectively, *e. g.*

653.



The organ-point in Example 654, in which all the Seventh accords common to the stem-tones of a major mode are caused to enter, presents among them the so-called chord-formations already discussed:—

654.



It will be seen, we trust, after this somewhat lengthy discussion, how much simpler the study of Harmony becomes by considering Triads and Seventh accords, only, as fundamental chord-formations, and all other combinations of tones either as suspensions of triads, or as organ-points or altered accords, (for the last, see the following chapter).

CHAPTER XXXIII.

ALTERED ACCORDS.

We have learned thus far the formation and treatment of major, minor, diminished and augmented triads, including suspension-formations in connection with these chords.

REMARK.—The *augmented triad* belongs properly to the catalogue of altered accords, since it can never occur without the aid of a chromatic sign, but, as it arises in the milder major and more vigorous minor mode, both of which modes make use of the necessary altered tone, it has acquired in modern times the name and status of a fundamental harmony. We have, therefore, thought proper to treat of it in connection with such harmonies, (page 126).

Further, we have spoken of all the Seventh accords which can be formed with the stem-tones of a major or minor mode, their entrance, progression and resolution; also, of suspensions applied to both the entrance and resolution.

The ambiguity of the Diminished Seventh accord, its entrance, progression and resolution have also been thoroughly explained.

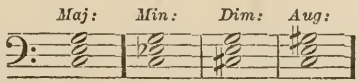
REMARK.—Like the augmented triad, the Diminished Seventh accord can never occur without the use of a chromatic alteration; it is therefore, strictly speaking, an altered accord. The artificially-voiced modes referred to in the above remark, contain the Diminished Seventh accord also, which fact, together with the importance of this chord, induced us to present its treatment in a special chapter, (XXXI). The frequent use of the Augmented Sixth-accord, Chord of the Third, Fourth and Augmented Sixth, and Chord of the Fifth and Augmented Sixth, has also gained for them a special name and importance, (Chapter XX). They are all altered accords, however, inasmuch as they cannot be produced with the stem-tones alone of any major or minor mode. It is not to be forgotten that by *stem-tones*, we mean the tones of any mode without the application of *accidentals*.

Finally, in the preceding chapter, we have discussed the so-called, though only seeming, Chords of the Ninth, Eleventh and Thirteenth.

We come now to notice that there are still a great number of *triads*, as well as *Seventh accords*, which arise through the chromatic elevation or depression of any one or more tones of the original or fundamental harmonies. There is no practical advantage gained in giving special names to all of these various combinations, as some theorists have sought to do, therefore we class them under the head of Altered Accords. The most important point is to know from what harmonies they are derived and how they must progress.

With the triads in Example 655 we are already familiar; we recognize them as fundamental harmonies:—

655.



If we apply one or more chromatic alterations to any one of the above triads, thus changing their intervals, an altered accord arises, *e. g.*

656. *a.* *b.* *c.* *d.* *e.* *f.* etc.

The effect of many of these altered accords is much improved by being placed in their Third-Sixth or Fourth-Sixth positions, or with the voices dispersed; *i. e.*, in open position. The chord at *a*, Example 656, may occur in the following-wise:—

657. *a.* N.B.

It may be asked if the tone B would not be as correct as C♮, in the chord at N.B? We answer, that the following chord (B♭, E, G) decides the question, for the *tendency toward* B♭ is more clearly defined by writing C♭ than B♮. The altered accord (C♭, E, G) thereby arises. We have previously remarked that the most natural tendency of a *flat*, chromatically introduced, is a progression *downward*, while that of a *sharp* is *upward*. The progression of a natural, *i. e.*, stem-tone in any mode, is neutral, not decisive in either direction; therefore, if a determined progression is desired, it should be as decisively indicated as is consistent under the existing circumstances.

In the following examples, instances are given of the manner in which the altered accords at *b*, *c*, *d*, *e* and *f*, Example 656, may arise and progress:—

658. *a.* *b.* *c.* *d.*

658. *b.* *e.* *f.* *f.* or

At *c*, Example 658, the middle voice is written G♭, instead of F♯, because of its being afterward led to F, toward which tone F♯ does not naturally tend. The lower voice in the same chord is written C♭, instead of B♮, because of the

desired progression to B♭. As the upper voice can be no other than E, the altered accord, C♭, E, G♭, is the result.

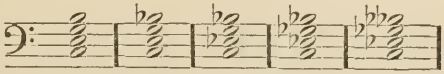
At *d*, E♯ indicates the progression to F♯ more decisively than F♮ would. Just so G♯, in the lower voice, tends toward A, whereas A♮ does not. The C, in the middle voice, is bound, hence the combination, C, E♯, G♯. At *e*, the progression to A, in the upper voice, is clearly indicated by G♯, while in the middle voice, the progression chromatically, from E to D is more decidedly felt through E♭ than D♯. The lower voice (C) being bound, the combination chances to be C, E♭, G♯. At *f*, E♭♭ leads more decisively to D♭ than would D♮; G♭, in the middle voice, indicates a progression to F better than F♯.

REMARK.—The accord at *f* will be recognized as the Chord of the Augmented Sixth, which, as we here see, is an altered accord. The use of its Fundamental position is seen at *f*, in the last example of No. 658.

That the above altered accords are correctly written will be felt by every cultured musician; but, further, they are all so written as to present recognizable forms to the eye; *i. e.*, their derivative harmonies are easily detected.

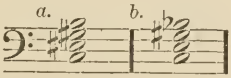
We recognize the following as the various kinds of fundamental Seventh accords:—

659.



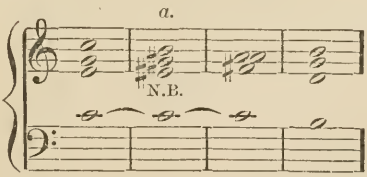
The same as with triads, the application of a chromatic sign to one or more tones of any of the above Seventh accords produces an altered accord, *e. g.*

660.



The chord at *a*, Example 660, could occur in the following-wise:—

661.

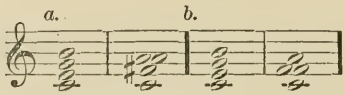


The resolution or progression of altered Seventh accords is the same as that which is possible to the original chord; *i. e.*, without alterations. The leading of each single voice may often be more limited, so that all the progressions of the original accord may not be practicable for the altered accord, but it will be found that the altered accord will have no progressions impossible to the original.

To learn what the original chord is, it is only necessary to cancel the *accidentals* in the altered accord foreign to the defined mode. Thus, the *original*

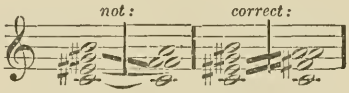
chord at N.B., Example 661, would be C, E, G, B, and could progress the same as the altered chord, (see *a*, Ex. 662).

662.



The progression at *b*, although correct for the original accord, would not be practicable for the altered accord in Example 661, for, in the latter, the G♯ presses toward A and not toward F. The E♯ tends toward F♯ rather than F♮, which would be only an enharmonic change. Compare *a* and *b* in the following example:—

663.

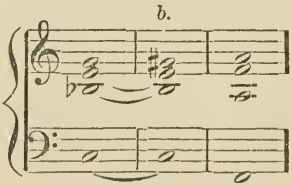


It will be seen, from the above, that what was said about the leading of the voices of the altered accords being more limited than in their original harmonies is verified; also, that the original can make any progression possible to the altered accord.

The only semblance of a rule that can be given for the progression of these chromatically altered tones, is that *their natural tendency, degree-wise upward or downward, be observed, provided the voices of the original chord can progress to the same tones.* Of course the unaltered tones progress the same as in the original accord.

The altered Seventh accord at *b*, Example 660, might occur in this wise:—

664.



The *original* of the chord at *b*, Example 660, would have G♮ instead of G♯, but its progression to A would be just as correct though the *tendency* upward would not be so clearly felt as it is with G♯.

Although only a few of the possible altered accords have been indicated in this chapter, yet enough have been given to furnish the student an insight into their character, origin and treatment. They are essentially part and parcel of the music of modern times, but, if naturally introduced and naturally progressed, they certainly cannot be regarded as illogical or unjustifiable. Their effect in an organ-point formation is naturally still more striking, but allowable, if all the conditions of such formations are duly observed.

PART III.

SIMPLE COUNTERPOINT.

The four-voiced is unquestionably the purest and fullest, without being overloaded, of any harmonic movement; it has, therefore, been the basis of our studies. However, in most compositions for four-voices, (Quartettes), passages or whole movements occur in which only one, two or three voices are made use of; *i. e.*, as Solo, Duo or Trio, respectively.

Again, we find compositions, or parts thereof, in which five, six, seven or eight voices participate, as Quintette, Sextette, Septette or Octette, respectively. A greater number than eight voices is rarely used.

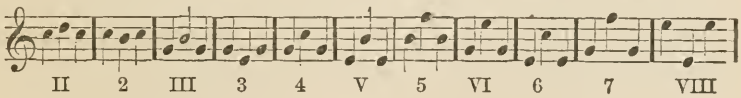
Although the explanation of the manner of manipulating all these varieties of movement properly belongs to the province of Counterpoint,* it yet seems proper to us that such rules should be drawn from that department of musical science as will be necessary to show what must be observed in order to write any one of them in an acceptable manner.

CHAPTER XXXIV.

I. DEVELOPMENT OF MELODY OR PRINCIPAL VOICE. ACCOMPANIMENT FORMS.

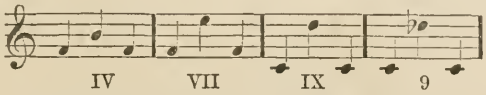
The first and most important point in the formation of a melody is the selection of naturally melodic intervals and the avoidance of unnatural, unmelodic. Though often repeated, we enumerate them once more. According to classical rules we reckon as melodic intervals, major and minor seconds, major and minor thirds, minor fourths, major and minor fifths, major and minor sixths, minor sevenths and major octaves, ascending and descending, as follows:—

665.



The unmelodic intervals are major fourths, (tritone), major sevenths, major and minor ninths:—

666.



* Weitzman's System of Counterpoint and Fugue is in course of preparation by the Editor of this work.

Further, all diminished and augmented intervals. In modern or romantic compositions diminished sevenths are regarded as melodic. Of course, when a certain defined effect is sought, then the use of even *un*melodic intervals may be justifiable.

In the formation of a melody, or, indeed, any kind of a composition, the composer will most naturally proceed in the same manner as an artist about to reproduce his thoughts upon canvas; first, an *outline* and afterward the perfected work.

Supposing a melody to have been outlined, the next procedure is to criticise and improve it with respect to three principal points:—

1. WITH RESPECT TO ITS MELODIC QUALITIES.

The *melodic element* is essentially *degree*-wise. The use of skips is not necessarily forbidden, but rather so restricted as not to set aside or injure this essential character. Therefore, if the outline contain an over abundance of skips, eliminate them and insert degree-wise progressions in their stead.

2. THE RHYTHM.

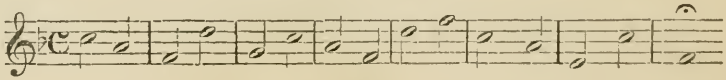
As has already been remarked, *rhythm* is one of the most powerful agents at the service of the composer. Through alterations in the rhythm, alone, the dullest, most uninteresting melody may often be given a life and vitality absolutely surprising. Therefore, see that the rhythm is interesting, sufficiently varied as to prevent monotony and yet uniform enough to preserve the symmetry.

3. THE HARMONIC FOUNDATION.

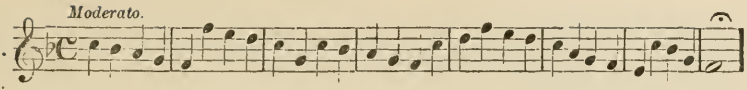
A melody should be so ordered as to permit the use of an agreeable variety of harmonies, such as will move freely and flowingly among themselves.

As a whole, a melody, like a sentence in prose or poetry, should express sense, a definite idea. If words are used, especial care should be taken that they are properly declaimed. Let accented words and syllables fall on accented parts of the measure. Observe the inflections, whether rising or falling, and let the melody move in the same direction. The punctuation is not to be forgotten. In a word, let the music and words be so wedded together as that both may combine to express the same thoughts and emotions.

To make the above comments more lucid we will suppose that a melody first suggests itself to us in the following form or outline:—

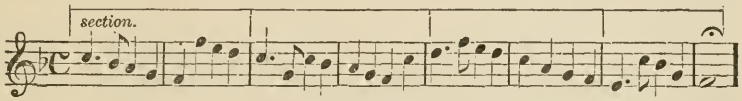
667. 

The first criticism to be made, is, that the *melodic* element (degree-wise progression) is entirely wanting here. We must correct this, either by the substitution of other notes here and there, the application of *appoggiaturas*, or by the introduction of passing-notes. We choose the latter method, and present in Example 668, an improvement on our outline:—

668. 

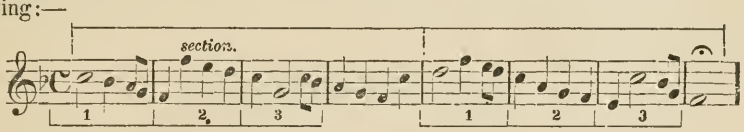
The period has now gained sufficient *melodic* flow. Sufficient spring-wise element has been retained to give variety and prevent the monotony which would just as surely arise in continuous *degree*-wise as in continuous *spring*-wise progression.

The second point of criticism has reference to the rhythm. The continued succession of any one kind of note, as in the above example, certainly has no especial rhythmic interest; in fact it is decidedly monotonous. The simple introduction of a dotted-note will often effect an improvement in this respect, *e. g.*

669. 

The regular recurrence of the dotted-note here in each alternate measure creates at once two-measural rhythm.

A still greater alteration in the rhythm of the above melody is seen in the following:—

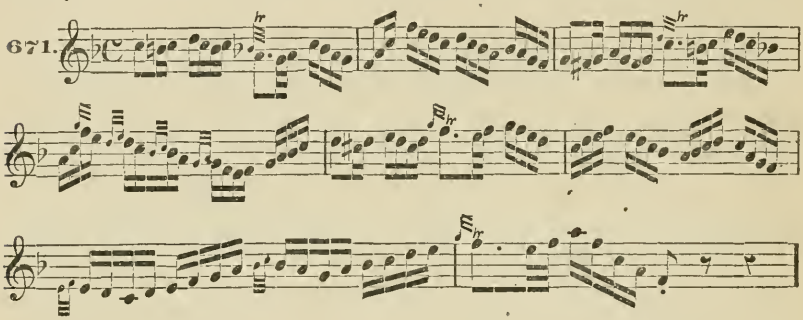
670. 

In the last example, three varieties of rhythm follow one after the other, (see brackets, 1, 2, and 3; the fourth measure is like the second), and thereby the melody gains in attractiveness; but, to give so many varieties a significance or symmetry, their repetition is necessary, (see last half or section of the period). It is well to remark here that the use of too many and too strongly contrasting kinds of rhythm is to be guarded against, otherwise, the connexion or unity of the whole will be wanting. It must also *not* be inferred here that every figure or motive that may appear in the course of a melody or other composition is without exception to be repeated. We are not so hedged in as that, but, as we remarked before, *symmetry* and *unity* can be gained only through more or less similar, if not exact, repetition of the motives in question, be it melodic, rhythmic or harmonic.

Further, it will be found a matter of decided facilitation, if, in forming a melody, the rhythmic and melodic motives occurring in one section are imitated in succeeding sections. It is still more symmetrical if the repetition of a motive take place at the *same point* in each section, as in the above example. Thus, the motive at 1, beginning the first section, is used again as a beginning to the second section, and so on. In order that the close of a period may take place upon an accented measural-division, more rhythmic freedom may always be taken, (compare final measures of the two sections).

By the aid of auxiliary-tones, passing-tones, appoggiaturas, trills, mordents, and formation of passages, a melody may be ornamented and made as florid and brilliant as may be desired, and yet retain the same, or enough of the same melodic and harmonic foundation to enable one to recognize the original. As an example we will apply these various means to the outline of the above melody:—

671.



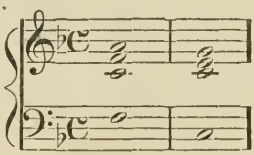
The third point of criticism would be the harmonic foundation; but, as the capabilities of the above melody are so varied in this respect, further comment will be unnecessary.

FORMS OF ACCOMPANIMENT.

Having spoken of melodic forms, it will be appropriate to insert here a few remarks concerning the various forms of accompaniment. A few of the most important will sufficiently indicate what is possible.

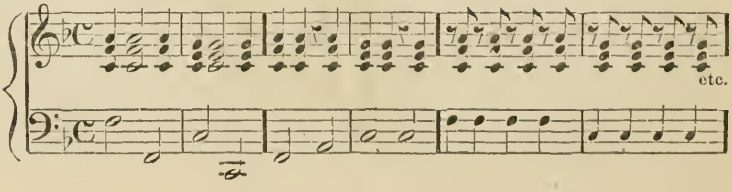
First, so long as the melody moves in and around a single harmony, a single accord may be sustained. For instance, if a melody moved itself in the Tonic and Dominant harmonies of the mode of F major, the accompaniment could be as follows:—

672.

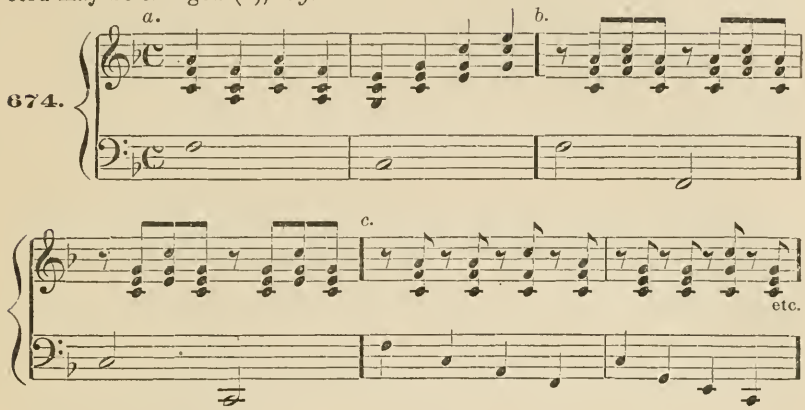


This may be rhythmically changed if more motion is desired, *e. g.*

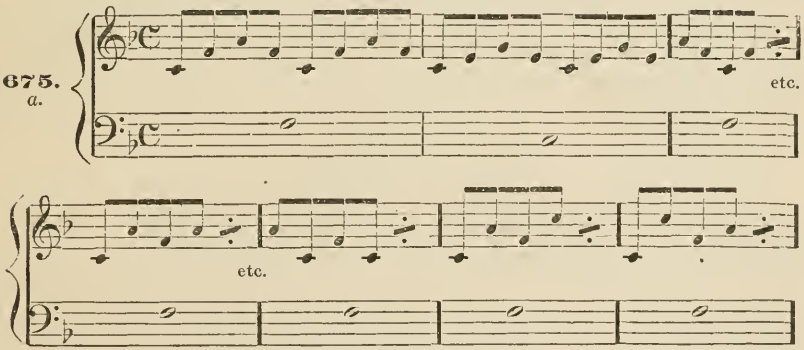
673.

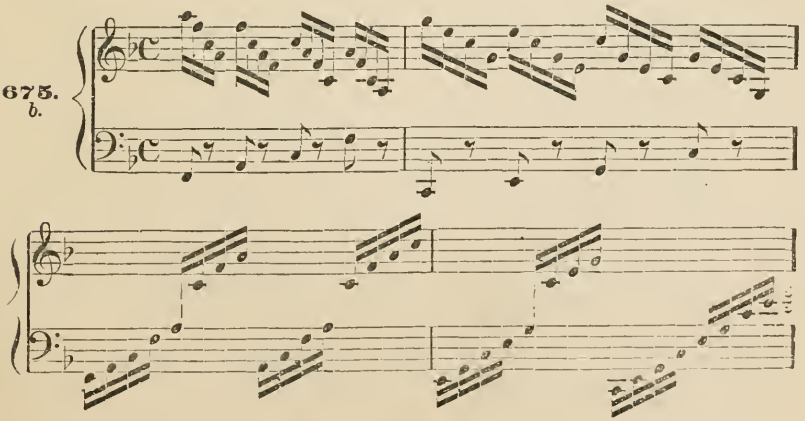


The placing of the voices (*a*, *b*, Ex. 674), or the position of the whole accord may be changed (*c*), *e. g.*



The chords may be broken; *i. e.*, arpeggio form, *e. g.*





The accord-tones may be elaborated by means of auxiliary-tones, appoggiaturas, passing-notes, etc., *e. g.*

676. *a.*

676. *b.*

etc.

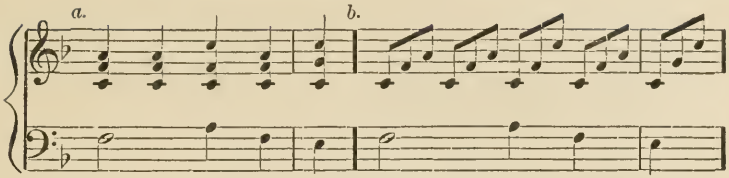
The voice-leading in all these different forms, is of course, to be just as free from faulty progressions as a simple chord-succession. The effect of the parallel octaves in the following example at *a*, (see brackets), is just as bad as if written in chords, as at *b*.

677.

a. *not:* *b.* *not:*

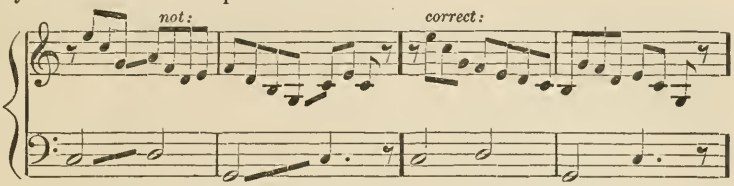
In writing such a succession of harmonies we should very likely lead the voices as at *a*, Example 678. The accompaniment would, therefore, be developed upon the same basis, (*b*).

678.



Faults, like the following at *a*, easily arise if attention is not directed to them. Contrary motion is the best preventive.

679.

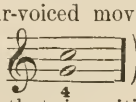


When a suspension occurs in the melody or song, the note of resolution should not appear in the accompaniment (and *vice versa*) *previous* to the resolution of the suspension. This very common fault is a violation of the rule on page 150, (see also Ex's 400 and 401). The usual exceptions, however, prevail,—suspension of the ninth or seventh before the octave of the Bass.

CHAPTER XXXV.

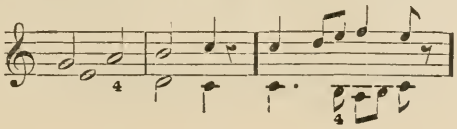
II. TWO-VOICED MOVEMENTS.

All the observations made in connection with the treatment of a single voice are to be repeated here in connection with two voices. The two-voiced movement attains its highest development only in a thorough treatise on Counterpoint and Fugue. As the present work does not purpose the extended discussion of these subjects, therefore, only so much as is absolutely necessary to the comprehension of the plainer phases of a two-part movement (Duett) will be given under the above caption.

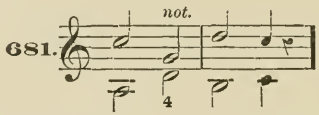
The various intervals, both consonances and dissonances, are to be entered and progressed exactly as they have been in four-voiced movements, with the exception of the *minor fourth*. This interval, () standing by itself, lacks fullness and independence, so much so that in writing for two voices it must be treated in the same manner as dissonances.

1. It must arise and progress as a passing-note,—*degree*-wise, *e. g.*

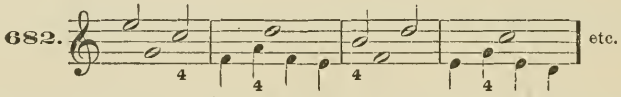
680.



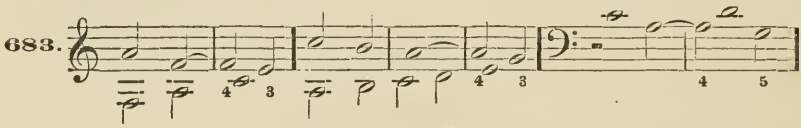
In both of the above examples the *fourth* enters and progresses degree-wise the same as a dissonance. The following example, (681), however, would not be correct either in the entrance or in the progression of the *fourth*, because both are effected *spring*-wise, *e. g.*



It should be remarked here that in cases where the two voices move in such a manner as to *represent* (see remarks on this point, page 76,) a Third-Sixth, or Fourth-Sixth accord, then the *fourth* would be treated the same as in three, and four-voiced movements, *e. g.*

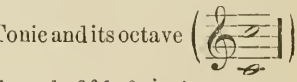


2 The minor fourth may appear in the character of a bound dissonance, bound above or below. Then, of course, all the rules relative to *preparation*, *attack* and *resolution*, as given on pages 146–59, are to be strictly observed, *e. g.*



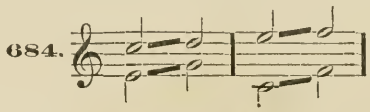
VARIETIES OF MOTION.

These are the same as given on pages 74–75. Contrary motion best asserts the independence of the voices while Parallel best expresses their union.

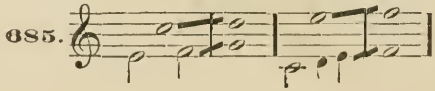
THE BEGINNING AND END must indicate the Tonic-triad. The close is most frequently made with a doubled prime ( ) or Tonic and its octave ()

The *Tonic* and *third*, *third* and *Tonic*, and *Tonic* and *fifth*, form just as correct but not so firm endings.

FIFTH AND OCTAVE PROGRESSIONS. Not only *parallel* but also *covered* octaves and fifths are forbidden in *two-voiced* movements, *e. g.*



The effect of the above covered fifth and octave, in two-voiced movements, is but very little better than that of the following parallels, therefore, their exclusion:—



In two-voiced movements, note against note may be used, or two notes against one, three notes against one, etc.

NOTE AGAINST NOTE.

In the first species the following is to be observed:—

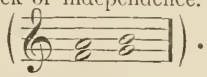
1. *Consonances* only are to be used, (the *minor fourth* in a Counterpoint of two voices, is to be regarded as a *dissonance*). They may enter spring-wise or degree-wise and progress in the same manner.

In modern compositions, however, the dissonances which enter free in four-voiced writing are also allowed to enter free in two-voiced movements; thus, with two voices we may represent the Diminished triad, Dominant and Diminished Seventh accords in all their positions.

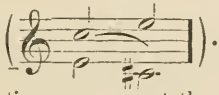
2. Consonant fifths and octaves should be frequently alternated with thirds and sixths, which latter are fuller intervals.

3. As the accented measural-divisions stand out most prominently, too many consonant fifths and octaves placed upon these accents will cause the whole movement to lack fullness.

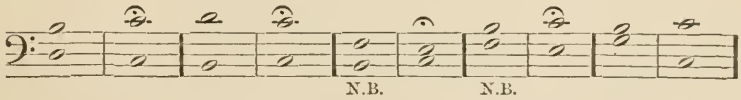
4. Too many *parallel* thirds or sixths cause a lack of independence.

5. Parallel *major* thirds are not often good:—  .

6. Where one voice springs, cause the other, where practicable, to progress degree-wise.

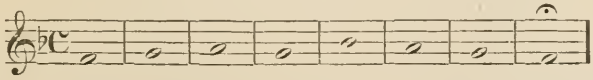
7. Avoid all cross-relations:—  .

8. In the way of cadence-formations we present the following:—

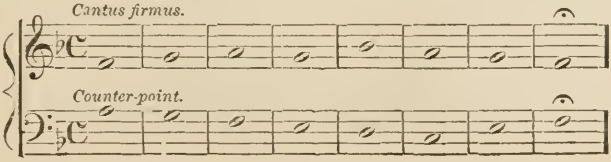
686. 

The diminished triad is often used in cadences, in free style, (N.B).

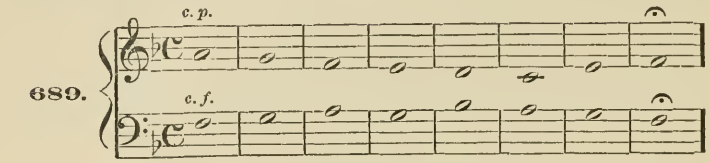
For practice, it is recommended that a *cantus firmus* be composed or selected, and the second voice or *counterpoint* set thereto, first as lower and then as upper voice. We choose for our illustrations, the following *c. f.*

687. 

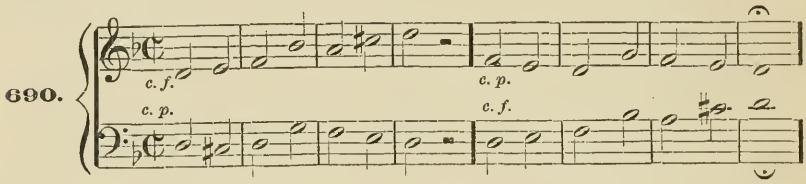
To this we apply a counterpoint according to the above observations:—

688. 

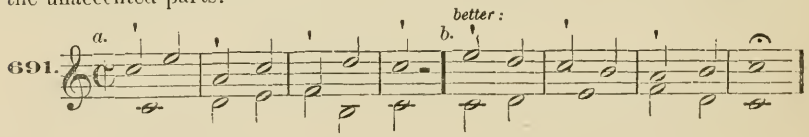
Example 689, presents the *c.f.* as lower voice, to which a counterpoint, (*c.p.*) as upper voice is added:—



In minor, the close should be preceded by the leading-tone which is always chromatically altered, *e. g.*

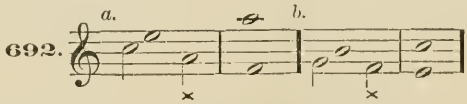


Referring to what was said about placing too many consonant fifths and octaves upon the accented measural-divisions, it will be seen that the following example, at *a*, lacks fullness on that account. The example at *b*, makes use of the full-sounding consonances on the accented, throwing the others upon the unaccented parts:—

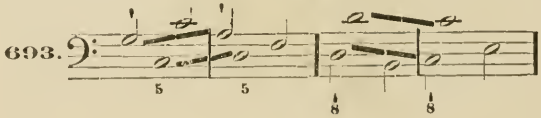


TWO NOTES AGAINST ONE.

In this species of counterpoint, the primary accent or beginning of the measure is to be *consonant*, while the note which follows may be consonant (*a*, Ex. 692) or it may be a regular passing-note; *i. e.*, a note coming degree-wise *from*, and progressing degree-wise *into* a consonance (*b*×).

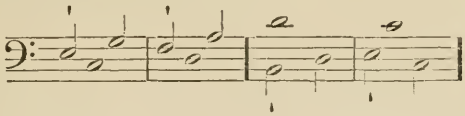


Neither *fifths* nor *octaves* are to be placed upon *consecutive accents*, for the prominence thereby given them produces the effect of parallel fifths and octaves. The unaccented notes, lying between, do not hinder this effect, *e.g.*



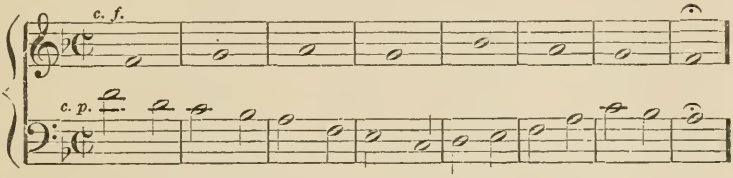
If the notes forming the fifths or octaves occur unaccented, the bad effect will be for the greater part removed, *e.g.*

694.



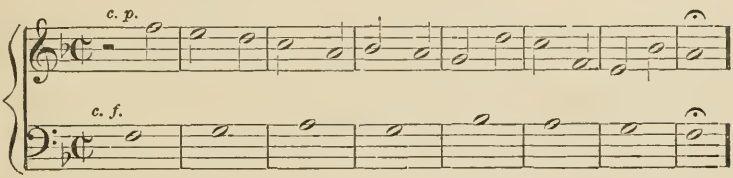
Making use of the same *c.f.* as at first, we add a counterpoint of two notes against one, according to the above rules and observations, first as lower, (695) and then as upper voice, (696).

695.



When a rest occurs, the first note thereafter is to be consonant.

696.



In a counterpoint of *three notes against one* the same rule for the primary accent prevails. Of the second and third notes, one or both may be consonant, or they may be regular passing-notes.

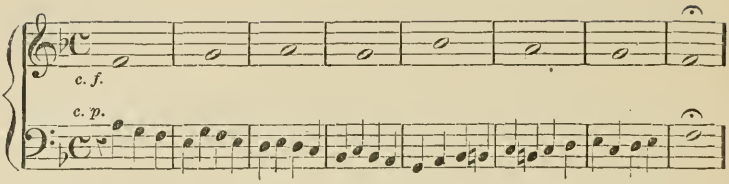
FOUR NOTES AGAINST ONE.

As before, the primary accent should be consonant. Once for all, this is the classical rule, and one that is always safe to abide by. Modern composers, however, sometimes deviate from this rule, in the freer style, by using a passing-note or an *appoggiatura* upon the primary accent. This is justifiable, of course, if a compensatory advantage is thereby gained, such as a better leading of the voices, or in order to avoid a false progression.

In the present species, there is also an accent upon the third measural-division, (𝅗𝅥 𝅘𝅥 𝅗𝅥 𝅘𝅥) therefore, if the counterpoint is to be perfectly pure and transparent, both of these accents should receive consonances. If it is desired, however, the second accent as well as the usual unaccented measural-divisions may be given passing-notes, even according to classical rules.

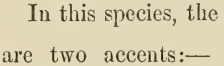
No. 697, will serve as an example in which the above observations are heeded:—

697.

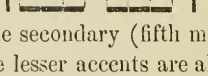


The *c.f.* may be employed as the lower voice and a counterpoint as upper voice added thereto.

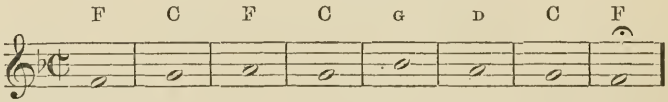
SIX NOTES AGAINST ONE.

In this species, the accents are of two kinds. If written in $\frac{6}{8}$ time there are two accents:— . If in $\frac{3}{4}$ time there are three:—  . The passage will naturally be purer if each accent receives a consonant, but it is only necessary that the primary accent be so treated.

EIGHT NOTES AGAINST ONE.

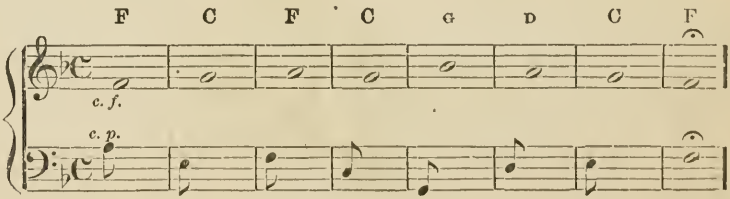
The accents in this variety are as follows:—  . The primary accent is to be consonant, and, generally, the secondary (fifth measural-division) also, though this is not obligatory. The lesser accents are also optionally consonant. In this connection we will explain at length a means of facilitating the application of a counterpoint or second voice to a given *c.f.*, *viz:* the *c.f.* having been written, the whole phrase or period is to be surveyed and the harmonies determined which may naturally succeed each other upon such a melody. Their *fundamentals* are to be recorded in the same manner as set forth in the chapter upon Harmonic Accompaniment, (XXII), *e. g.*

698.



Even two voices can present the outline of a harmony; therefore, the above process will direct the attention to the harmonic foundation also, and thereby add interest to the whole passage. Having fixed upon the harmonies it will be found easy and very advantageous to write down the first note in each measure of the counterpoint, *e. g.*

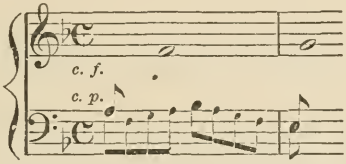
699.



The chief points having been determined, the only thing remaining is to fill out the spaces in this outlined counterpoint. These are to be filled out as melodically as possible, avoiding both parallel and covered octaves and fifths.

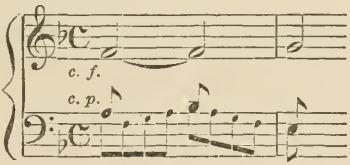
In a phrase where so many notes in one part appear against one of another part, it is imperative to determine beforehand what note the counterpoint must reach in order to be consonant with the corresponding note in the *c.f.* Thus, in the above example the *goals*, so to speak, having been determined, a *c.p.* commencing at one note or goal, is to be so ordered and lengthened as to move smoothly to the next, thereby melodically connecting these two points. For example, using the beginning of the above sketch, the *c.p.* might move as follows:—

700.



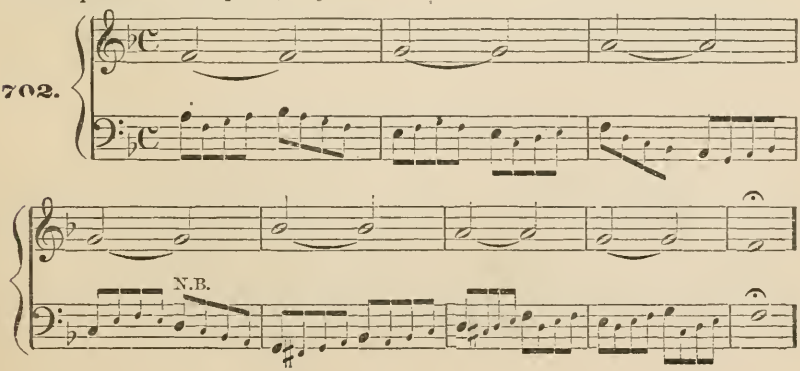
The following additional *facilité* will often be found useful in simplifying the process of adding these intermediate notes. The application of four notes against one is certainly much easier than eight against one, therefore if the whole note in Example 700, be divided, or imagined as divided, into half-notes the process will be virtually four notes against one. We should then have two goals to each measure, and the distances being short, the counterpoint can be filled out with corresponding ease, *e. g.*

701.



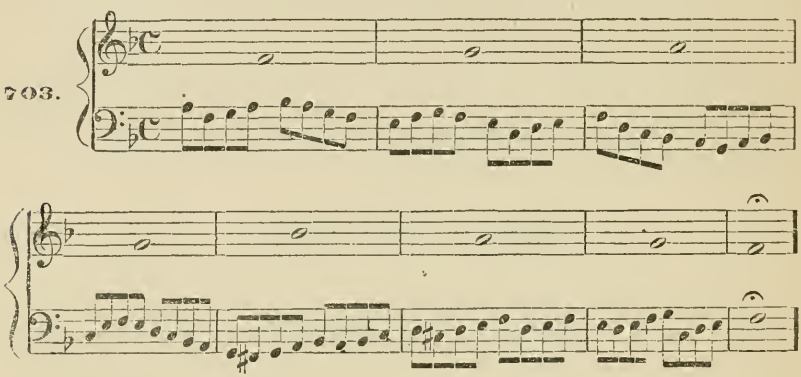
Pursuing the plan just indicated, we present the entire *cantus firmus* with the completed counterpoint, *e. g.*

702.



At N.B., a *minor fourth* occurs upon the secondary accent; its treatment as a *passing-note* will be noticed. It is self-understood that the division of the whole into half-notes here is only temporarily done, therefore, the appearance of the exercise properly written will be as follows:—

703.



The further varieties, with twelve or sixteen notes against one, have the same rules as those already given.

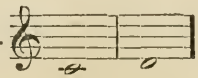
SUSPENSIONS. BOUND DISSONANCES. BOUND CONSONANCES. SYNCOPES.

The Bound Dissonance is especially characteristic of the contrapuntal style of composition. The Bound Consonance is also important, but occupies a second place, when compared with the first named. The rules for suspensions have been comprehensively noticed on pages 146–59. The same are to be observed here. In a bound consonance no resolution, as such, is necessary; its progression may be degree-wise upward or downward, or spring-wise to any other consonance.

CANTUS FIRMUS AS UPPER VOICE. SUSPENSIONS FROM BELOW.

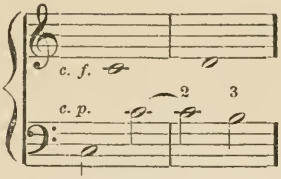
To practically illustrate the application of suspensions in two voices, let us take the following *c.f.*, first as upper voice:—

704.



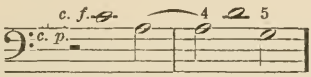
The preparation, which will take place in the first measure, can be effected by means of each tone in the mode of C major which forms a consonance with the tone C. The consonant tones below C, are C, A, F and E, hence, each of these will in turn be used in the following examples as preparation-notes. First, binding C as the preparation-note, it becomes dissonant through the entrance of D in the *c.f.* and then resolves downward to B, *e. g.*

705.



In Example 706, the consonant A is used as the preparation, and, by the entrance of the D, a minor fourth arises. This must be resolved downward the same as a dissonance. The resolution to a fifth lacks fullness, to be sure, but as the same suspension is valuable in movements for three or more voices, we give it here:—

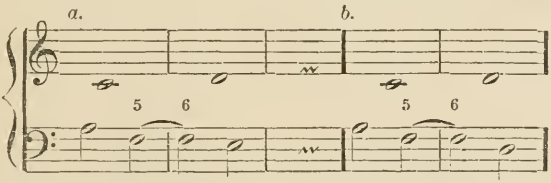
706.



The tone F is used in the following suspension as the preparation-note. The entrance of the D yields a *consonance*, therefore, the progression of the F may be degree-wise downward, (*a*) using E as a passing-note to a further progression, or it may spring to any other consonance, (*b*).

(The progression here of the F a degree upward, to G, would yield parallel fifths).

707.

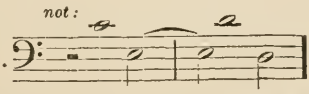


Example 708, shows the attempted use of E as a preparation-note.

Through the entrance of D the bound tone becomes dissonant and ought therefore to resolve a degree downward, to D.

According to an already given principle, (viz: *a tone which has been heard with the dissonance cannot be used immediately afterward as the resolution of that dissonance*), this resolution cannot take place. The suspension is, therefore, null and void and never to be used either in two, three or more voices:—

708.



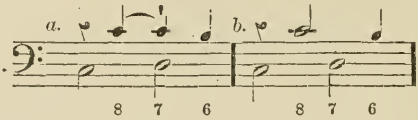
The Bass alone has the inherent power to sustain a suspension before its own tone. This exception is the Suspension of the Ninth, (see Ex. 710), and Suspension of the Seventh, already shown.

CANTUS FIRMUS AS LOWER VOICE. SUSPENSIONS FROM ABOVE.

If we use the above *c.f.* as the lower voice, the consonant tones above, which may be used as preparation-notes, are C, E, G and A.

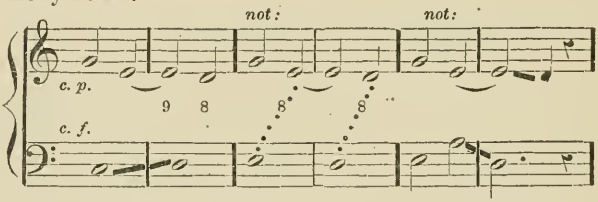
First, C as a preparation-note, and, as in $\frac{4}{4}$ time there is an accent upon the third measural-division also, ( ) the dissonance may be attacked at that point The example at *a*, 709, is usually written as at *b*, *e. g.*

709.



In the following example, the *ninth* is suspended before the *octave;* the Suspension of the Ninth just alluded to. It must always be approached in *contrary* or *oblique* motion, or else the effect of parallel or covered octaves will be distinctly heard:—

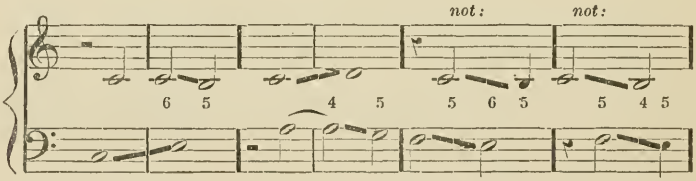
710.



A suspension never removes the effect of a faulty progression.

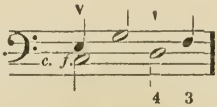
Similar to the Suspension of the Ninth, that of the *sixth* before the *fifth*, and the *fourth* before the *fifth* must always be approached in *oblique* or *contrary* motion, in order to avoid consecutive fifths, *e. g.*

711.



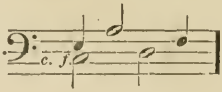
Using G as a preparation note, and the same *c.f.* as lower voice, a minor fourth arises. Its treatment is the same as a dissonance,—it is resolved a degree downward, *e. g.*

712.



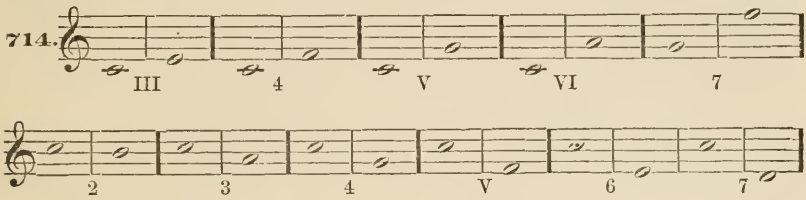
In using A as a preparation, no dissonance results; the progression of the bound tone is consequently not determined, *e. g*

713.



For the pupils exercise in this direction, any one or more of the various other melodic intervals may be taken as the *c.f.* and used first as upper and then as lower voice or *vice versa.* All the tones in the same mode which are consonant with the first note of each *c.f.* given below, are to be used as preparation-notes, then bound, and, through the entrance of the second note of the *c.f.*, the result will be either a dissonance or consonance which is to be resolved or progressed in the manner we have indicated in the preceding examples:—

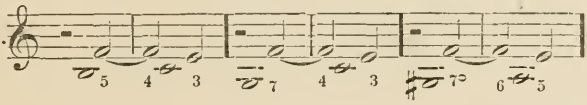
714.



The major fourth and major seventh are omitted because of their being unmelodic intervals.

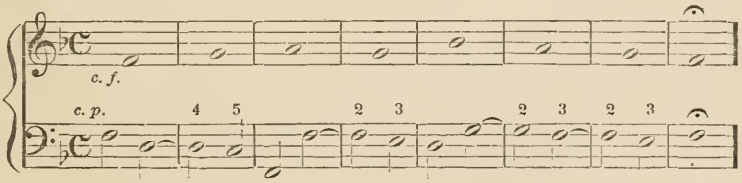
The foregoing suspensions have all been effected according to classic rules. In modern compositions the dissonances which are allowed to enter free are also allowed to be used as preparations to suspensions. These are the minor fifth, minor and diminished seventh. The reason of this license is found in the mildness of their dissonance, *e. g.*

715.

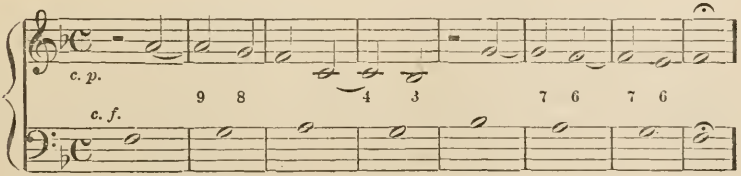


The following examples will suggest in what manner suspensions may be employed upon a more extended *c.f.*

716.



717.

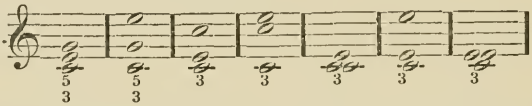


CHAPTER XXXVI.

III. THREE-VOICED MOVEMENTS.

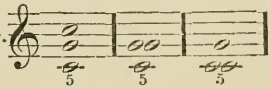
With the aid of three voices we are able to present a complete *triad*, and also the principal voices (*fundamental, third* and *seventh*) of a Seventh accord. Through the leading of the voices certain tones in these chords will be often omitted and other tones doubled in their stead. In a Third-Fifth accord (the Fundamental position of a triad) the *fifth* may be omitted and therefor the *fundamental* or *third* doubled, *e. g.*

718.



In former times, the *third* was often omitted and the *fundamental* or *fifth* doubled, especially at the beginning and end of a period or composition, *e. g.*

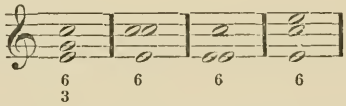
719.



Their use in this way has become obsolete, except, perhaps, where this very lack of fullness expresses the precise character desired.

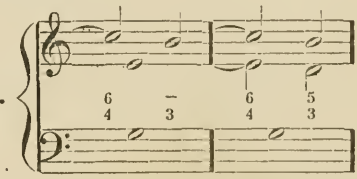
In a Third-Sixth accord, the *third* may be omitted and either of the other tones doubled in its stead, *e. g.*

720.



A Fourth-Sixth accord, which no tone can be omitted without changing the chord, is to be treated as a bound dissonance or as a passing-chord. As a *bound dissonance,* the *fourth* or both *fourth* and *sixth* may be bound and resolved a degree downward, *e. g.*

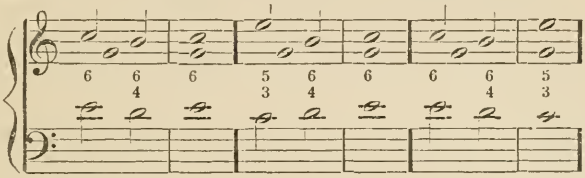
721.



As a *passing-chord,* it will occur unaccented and the Bass of the chord must be treated the same as a passing-note; *i.e.,* it must be gained and left degree-wise. The *fourth* and *sixth* are to be entered and progressed as melodically as is consistent with presenting not only the Fourth-Sixth accord but also the immediate preceding and following chords as full as possible. As the

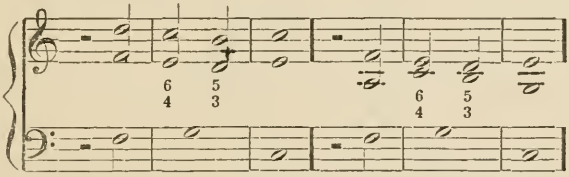
passing-chord occurs *un*accented, its predecessor and follower will most likely be accented, and endeavor should always be made to secure as complete, full-sounding accords as may be practicable upon the *accented* measural-divisions, on account of the prominence of those points. On the other hand, the weak effect of those chords, lacking fullness, is least felt when they occur upon the *un*accented parts of the measure. Examples of passing-chords:—

722.



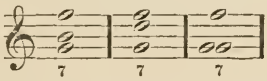
Modern composers enter a Fourth-Sixth accord *free*, (*i. e.*, unprepared by one or more of its tones having appeared in the preceding accord), but accented, as in the complete cadence, *e. g.*

723.



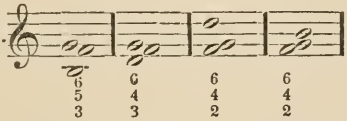
In *Seventh accords*, one tone, in three-voiced movements, will always necessarily be omitted. The *fifth* is best adapted to omission, but the *third* and sometimes both *fifth* and *third* are omitted and the *fundamental* doubled in their stead. This, of course, causes a corresponding lack of fullness, *e. g.*

724.



In the Fifth-Sixth accord, the *third* may be omitted; in the Third-Fourth accord, the *sixth*, and in the Second accord, the *fourth* or *sixth*, *e. g.*

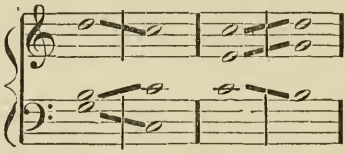
725.



The omissions in the various chords above referred to will arise in the endeavor to give each voice a *melodic* flow, rather than to the combination of voices a rich *harmonic* effect. In other words, the art of Counterpoint demands that each individual voice shall form a flowing, independent melody, and yet that the *combination* of voices shall not transgress the laws of Harmony.

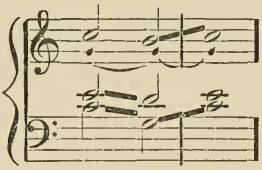
Covered octaves and fifths are allowed in three-voiced movements, but are to be much more carefully introduced than in movements for four or more voices. The classic rule specifies that one of the three voices shall move in contrary motion, *e. g.*

726.



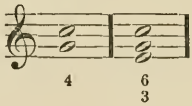
Modern composers deviate from this rule, allowing all the voices to rise and fall, although covered octaves or fifths appear, provided that there exists a tone (although not heard) which is common to both harmonies. Chords related in the fifth are most favorable to this deviation. Thus, in Example 727, all the voices rise and fall, causing the appearance of both covered fifths and octaves. Though not tangibly present, the connection (see dots) of these harmonies is easily felt, *e. g.*

727.



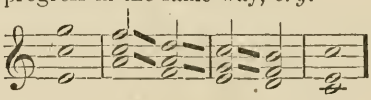
The *minor fourth*, which, in two-voiced movements, on account of its lack of fullness, is treated like a dissonance, in three-voiced movements may enter and progress like a consonance, (spring or degree-wise at will), provided it occurs as a *component part* of a consonant Third-Sixth accord, thus:—

728.



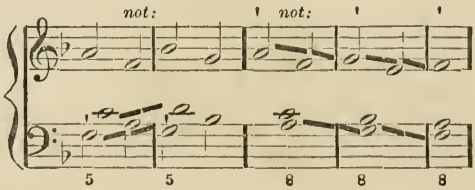
As we already know, the entrance and progression of a consonant Third-Sixth accord is entirely free; hence, the minor fourth, when appearing as a part of this accord, will progress in the same way, *e. g.*

729.



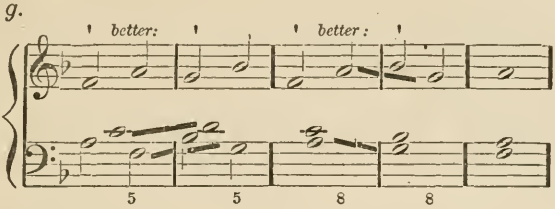
Fifths and *octaves* are not to be allowed even upon consecutive accents, *e. g.*

730.



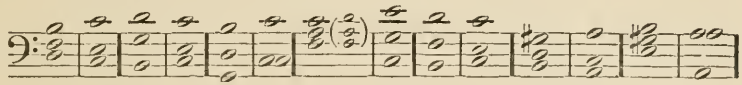
If *fifths* or *octaves* occur upon *unaccented* parts of the measure, while other intervals appear upon the between-lying accents, their judicious use may be permitted, *e. g.*

731.

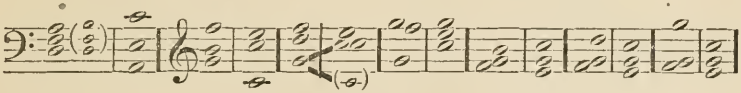


The principal cadences with three voices are as follows:—

732. *a.*



732. *b.*

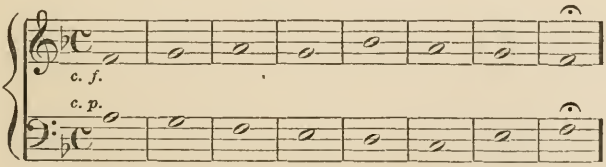


In the following exercises, in writing for three voices, the same plan will be pursued as that adopted for the two-voiced movement, *viz:* note against note, two notes against one, etc. The most practical way of working out a three-voiced movement is as follows:—Having composed or selected the *c.f.*, first outline a counterpoint and afterward add the third or filling-voice, at which time such alterations may be made, if found necessary, as shall adapt these applied voices to the *c.f.*, remembering, however, that each voice, when *separately* regarded, is to be as *melodic* as possible, and that the three voices when *united* shall present an intelligible *harmonic* succession. We shall make use of the same *c.f.* as in Example 687, and first set

NOTE AGAINST NOTE.

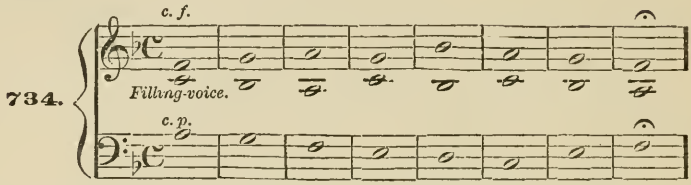
In this species we are to use only consonant intervals, consonant triads and the dissonant intervals and accords which are allowed to enter free. Following the above suggestion, we first apply a counterpoint, *e. g.*

733.



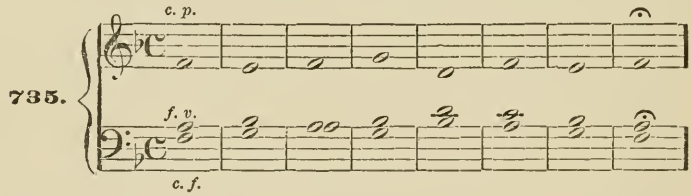
To this *c.f.* as Soprano, and *c. p.* as Bass, we are to next add the *filling-voice.* This may be either Tenor or Alto. The following point is to be borne in mind in the addition of this third voice, *viz:* such tones are to be employed as will increase the *harmonic* effect as much as possible and yet not sacrifice the for-

mation of an independent melody. Observing this, Example 733, three-voiced, may take upon itself the following treatment:—

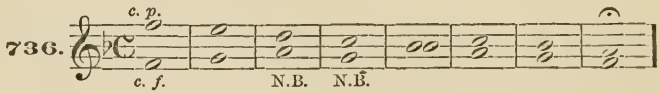


Upon examination it will be seen that each voice in Example 734 is of itself an independent melody, and that unitedly they form acceptable harmonies.

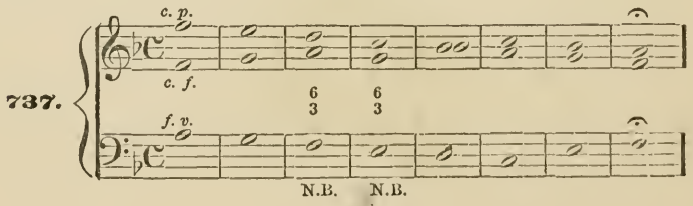
The exercise should be varied by using the *c.f.* as Bass and applying thereto a *c.p.* as upper voice, adding afterward a third or filling-voice, (*f. v.*), *e. g.*



A still further variation is to be gained by using the *c.f.* as a middle voice. In this case it is quite immaterial which of the outer voices be first added. Whichever it may be, of course that voice will be the *c.p.*, and the last added will be the *f. v.* It is not necessary that the *counterpoint* in a three-voiced phrase be applied exactly as in one of two voices. This remark applies especially to the *minor fourth* and to covered *octaves* and *fifths*, the first of which is treated like a dissonance, and the last of which are entirely excluded in two-voiced movements. For example, suppose we apply to the same *c.f.* the following *c.p.*:—



At N.B, minor fourths are used like consonances, which in two-voiced movements is not permitted. If now, in adding the third voice, care is taken to form Third-Sixth accords at these points, the fourths will be correctly used according to the rules for three-voiced phrases, *e. g.*

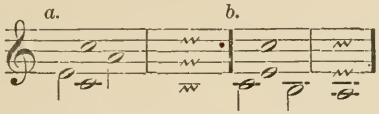


In the same manner the counterpoint may form covered octaves or fifths with the *c.f.*, provided they are made good upon the addition of the filling-voice, either by leading that voice in contrary motion, or by seeing that the represented harmonies are closely related, (see remarks on this point above).

TWO NOTES AGAINST ONE.

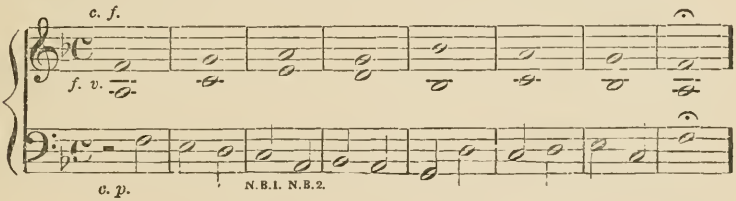
In this species, the primary accents should be given consonances or the free dissonances, the same as in note against note. The second may be consonant, entering and progressing spring or degree-wise at will (*a*, Ex. 738), or it may be a regular passing-note, in which both its entrance and progression must be degree-wise, (*b*), *e. g.*

738. *a.* *b.*



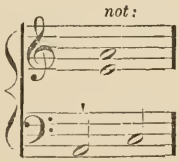
As before, the *c.p.* should be first added and the *f. v.* afterward, *e.g.*

739.



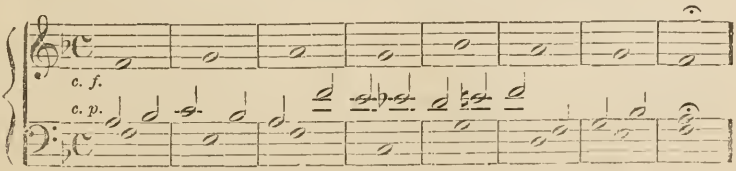
At N.B., 2, the chord lacks fullness on account of the omission of the *third* (C). The primary accent (N.B. 1) in that measure, however, presented the full chord, therefore, the unaccented measural-division (N.B. 2) may be allowed, where necessary, to use intervals which lack fullness. It would not be acceptable if the position of the two notes, C and A, in the *c.p.* were interchanged, especially in a slow *tempo*, *e. g.*

740.



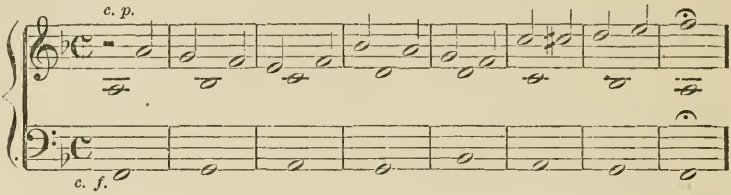
Example 741 retains the *c.f.* as upper voice, but varies the exercise by using the *c.p.* as a middle, and the *f. v.* as lower voice:—

741.

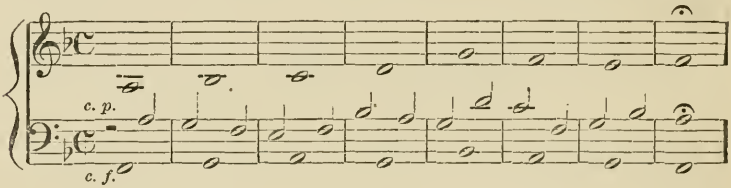


The *c.f.* should be placed in each voice, while the other two should have alternately the *c.p.* and *f.v.*, as follows:—

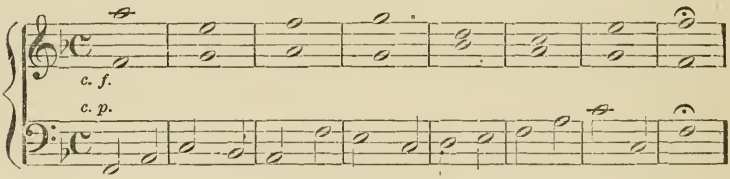
742.



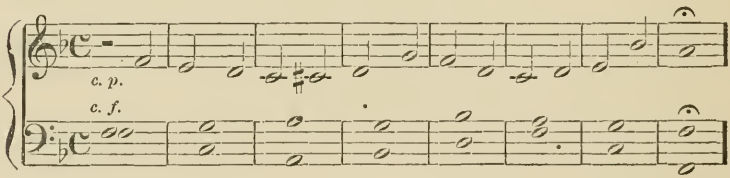
743.



744.



745.

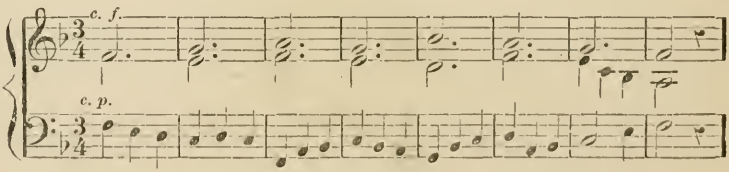


THREE NOTES AGAINST ONE.

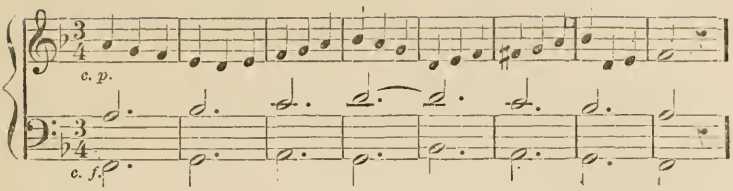
In this species, the primary accent is to be treated as before, while one or both of the following notes may be consonant or regular passing-notes, at pleasure.

The *c.f.* should be placed in turn as upper, lower and middle voice, and the *c p.* and *f. v.* alternated between the other two voices. In this way the *c.f.* may be used twice in each voice while the *c.p.* and *f. v.* alternate their positions. In the following examples the *c.f.* is used once in each voice, leaving the other varieties for the pupil to work out, *e. g.*

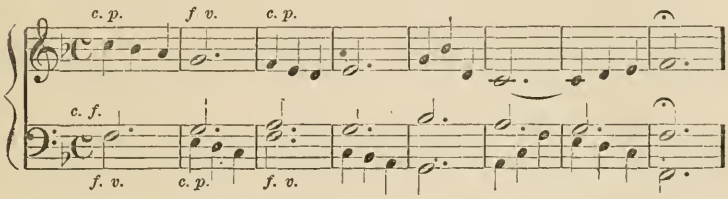
746.



747



748.



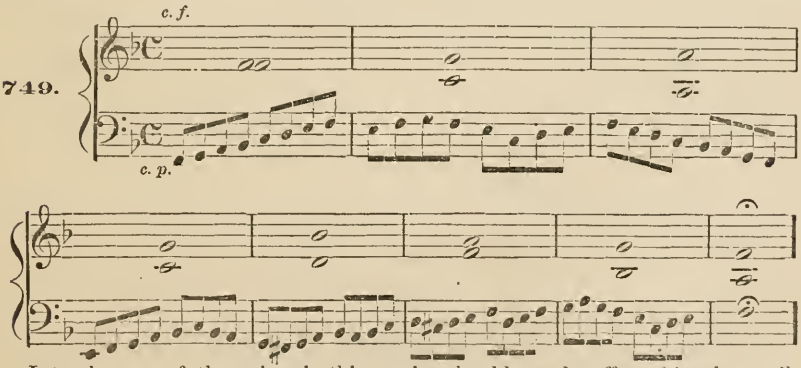
In the last example, the *c.p.* appears alternately as upper and lower voice, the *c.f.* having been placed in the middle. The *f. v.* alternates with the *c.p.*, and in this manner the exercise was worked out. Thus, it will be seen that a figure given out by one part may be imitated by another. It would lead us to the discussion of Canon and Fugue were we to fully develop the subject of imitation and treatment of figures or motives, and that being too extended for our present purpose, we, therefore, only throw out the above hints with the recommendation to an earnest study of the entire art of Counterpoint.

The rules for four, six and eight notes against one, are the same as for two-voiced movements; *i. e.*, the primary accent should be consonant while the other tones, accented or unaccented, may be consonant or regular passing-notes, at pleasure. We pass over the exercises with four and six notes against one, and present at once an example with eight notes against one.

EIGHT NOTES AGAINST ONE.

In outlining the *c.p.* to a given *c.f.* in this species, the *facilité* explained in two-voiced movements may be employed to good advantage.

749.



Interchanges of the voices in this species should now be effected by the pupil.

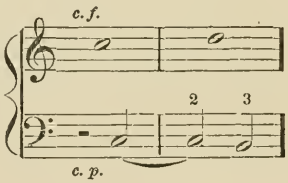
SUSPENSIONS IN THREE-VOICED MOVEMENTS.

The same rules apply here as for suspensions in general, and the exercises are to proceed in the same manner as explained in two-voiced movements, *viz:* first, two notes standing at the interval of a *second* are to be taken as the *c.f.*, and each consonance of the first note used as the preparation to a dissonant or consonant suspension. Having finished with a *second* as *c.f.*, other melodic intervals should be employed in the same capacity, (see table on page 253). The *cantus firmus* may appear in each voice alternately, and the suspended tone in each of the other voices, the *c.p.* and *f.v.* alternating with each other.

This yields a long list of suspensions, only a few of which will be presented here, sufficient, however, to indicate their further development, an exercise of great practical value.

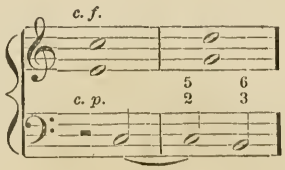
Placing the *c.f.* (C, D) as upper voice, the consonances which may serve as preparation-notes either in the lower or middle voice are C, A and F. It is most practical to first apply the suspension and afterward add the filling-voice. If the *f.v.* is to appear in the middle, of course the *c.f.* and *c.p.* will be so placed as to leave sufficient space. Using C as a preparation-note in the lower voice, the example would first assume the following form:—

750.



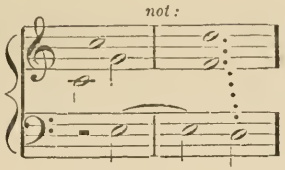
The next point would be to add the filling-voice. The harmony indicated in the first measure would most naturally be supposed to be the triad of C major, and that in the second measure the triad of G major, the *c.p.* being a suspension before one of the tones of that triad. The *f.v.* might therefore be added as follows:—

751.



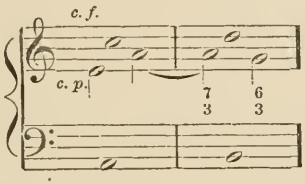
With the present *c.f.* the consonance E cannot be used as a preparation-note because its resolution would be false, *c. g*

752.



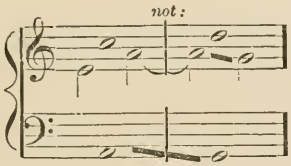
Leaving the pupil to form other suspensions in the lower voice, using the consonances A and F as preparation-notes, we pass on to give an example in which one of these consonances is used to prepare a suspension in a middle-voice, *e. g.*

753.



In connection with this example (753) it might be practical to say that the filling-voice could not be worked out as in Example 754, on account of the *octaves* which always arise in approaching a Suspension of the Ninth in similar motion, *e. g.*

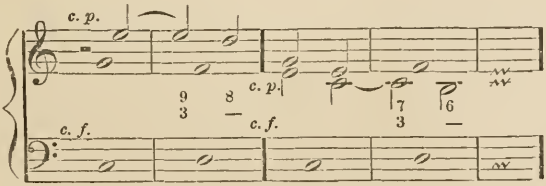
754.



The pupil should work out the other suspensions which may be made in the middle voice by using the consonances C and F as preparation-notes, still retaining the *c. f.* as upper, and adding a *f. v.* as lower voice. The consonance E cannot be used here as a preparation-note for the same reason as expressed in Example 752.

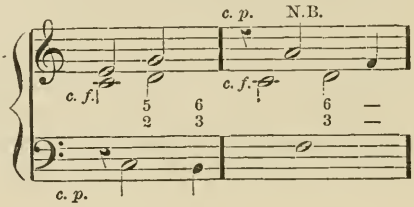
If we place the *c. f.* in the lower voice, the suspensions may be formed in the upper and middle voices alternately. The tones consonant with the present *c. f.* to be used in either of the upper voices, are C, E, G and A. We present in No. 755, an example of a suspension in each of those voices:—

755.



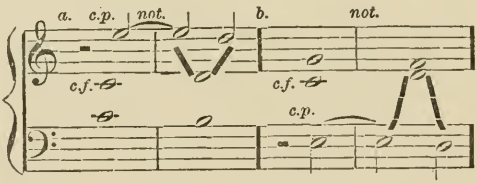
Further, if the *c.f.* be placed in the middle, suspensions may appear in the upper and lower voices. The consonances which may be used as preparation-notes have already been named. We give here an example of a suspension in the lower and upper voices with the *c.f.* in the middle:—

756.



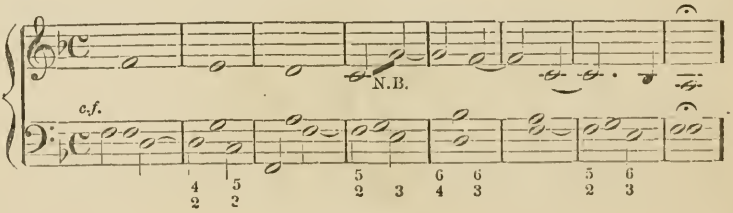
At N.B., Example 756, A is used as the preparation-note, and as it remains consonant during the entrance of both notes of the *c.f.*, its progression is free, degree or spring-wise, at will. The consonance E cannot be used as a preparation-note either as upper or lower voice when the *c.f.* here used appears as a middle voice. In the first case, it would form a Suspension of the Ninth before a *middle* voice, (*a*, Ex. 757), whereas the *lowest* tone, only, has the inherent weight to sustain such a proceeding. In the second case, the resolution would be to a tone already present, which is against the oft-repeated principle respecting resolutions, (*b*), *e. g.*

757.



Having worked out the various possible suspensions upon the above *c.f.*, other melodic intervals (see table, page 253) should be employed in the same manner until this characteristic of Counterpoint is thoroughly understood. A *c.f.* of more pretension may then be selected or composed and suspensions applied as in Example 758. As before, the *c.f.* can appear in any one of the three voices; it is placed in the middle voice here in order to present at once suspensions from above and below, *e. g.*

758



At N.B., one voice springs away before the resolution of the suspension takes place. This may always be done, provided the spring is made to a tone common to the chord of resolution. One more remark is necessary;—the introduction of a suspension should never disturb the unity of the rhythm by being so applied as to produce a limping, halting effect.

CHAPTER XXXVII.

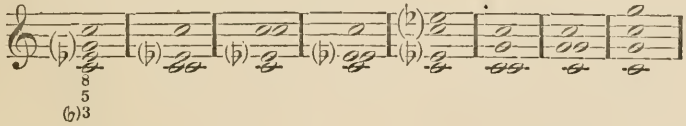
IV. FOUR-VOICED MOVEMENTS.

The *harmonic* phase of four-part writing has been thoroughly discussed in the Harmony System proper. The purpose in the present section is to give some general rules and suggestions with respect to the *contrapuntal* method of treating this number of voices. The specific and elaborate development of this style is not intended here, as has already been remarked, but as it is presumed that the student of music will not always be satisfied with the composition of continuous chord-successions or the harmonization of the given *c.f.*, note against note, so it is thought advisable to present a sufficient number of the principal rules of four-voiced counterpoint to enable him to ornament and melodize those chord-successions, and render more flowing the harmonies which may be applied to a choral melody. This might be properly termed the

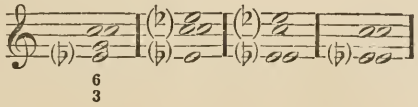
ELABORATION OF A HARMONIC MOVEMENT OR ACCOMPANIMENT TO A GIVEN MELODY.

With the aid of four voices, not only triads but Seventh accords may be presented in their entirety. It will often be found necessary or advantageous, however, in order to secure a melodic leading for each of the four voices, to omit certain tones in the accord and double others in their stead.

Thus, in a Third-Fifth accord, the *fifth* may be omitted and therefor the *prime*, *octave* or *third* doubled. The omission of the *third* seldom occurs except upon unaccented measural-divisions, *e.g.*

759. 

In a Third-Sixth accord, the *third* may be omitted and any of the other tones doubled in its stead, *e.g.*

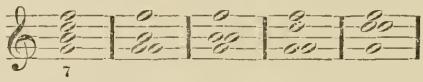
760. 

In a Fourth-Sixth accord, nothing can be omitted without destroying its identity. Its entrance even with the *fourth* omitted may often produce the feeling

of the presence of a Fourth-Sixth accord, but, inasmuch as the deciding interval is wanting, the chord could be regarded with equal propriety as a Third-Sixth accord. Any of its tones may be doubled.

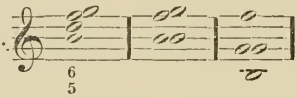
In Seventh accords, the *fifth* may be best omitted and the *fundamental* or *third* doubled. The *third* may be omitted and the *fundamental* or *fifth* doubled, *e.g.*

761.



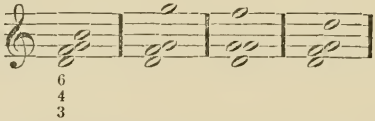
In a Fifth-Sixth accord, the *third* may be omitted and the *original third* or *fundamental* doubled, thus:—

762.



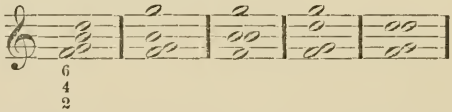
In a Third-Fourth-Sixth accord, the *sixth* may be omitted and the *fundamental* or original *fifth* doubled, thus:—

763.



In a Second-Fourth-Sixth accord, the *sixth* may be best omitted and the *fundamental* or original *fifth* doubled, *e. g.*

764.



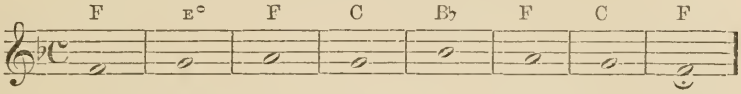
The rules for voice-leading are the same as have already been given in the Harmony System. Parallel octaves and fifths are entirely forbidden, and covered octaves and fifths are to be permitted only in connected accords. The *melodic* flow of each voice is more essential than the formation of full accords. In the endeavor to carry out this suggestion will be found the reason for the omission of various non-essential accord-tones, enumerated above. The exercises should proceed in the same manner as that shown in the two and three-voiced movements, *viz:* first, note against note, then two notes in each of the applied voices, in turn, against one in the *c.f.*, then three, etc.

The first species has been thoroughly discussed in the chapter (XXII) on Harmonic Accompaniment to a given voice, and a review of that section at this juncture will be of decided value as a preparation to what follows here. Notwithstanding the monotony which may possibly be experienced, we consider it more practical to employ the same *c.f.* through all our exercises, in the various movements under consideration, thereby giving an outline of what can be done with a single simple melodic phrase.

The first species here will be a simple choral-like succession of harmonies; therefore, the process explained in Chapter XXII, will be employed to determine those harmonies.

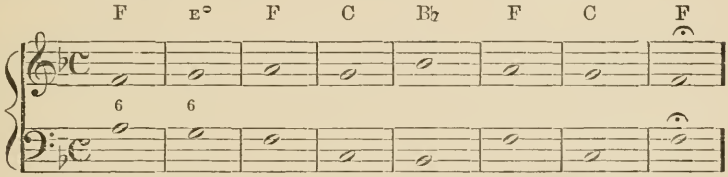
Having written down the *c.f.*, we note above it the *fundamentals* of such accords as are deemed a suitable accompaniment, *e. g.*

765.



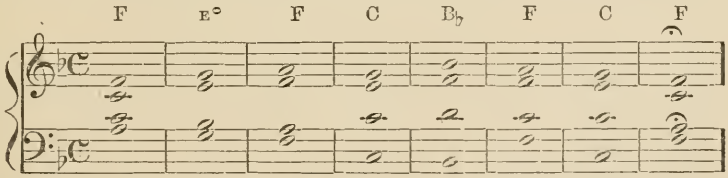
To this the most important of the applied voices should next be outlined, (here the Bass). We use the term *outline*, because it would be almost impossible to secure permanence to this *c.p.* before the other voices are added. The advantage to be gained in this outline is a sort of basis upon which may be formed all of the applied voices.

766.



The middle or filling-voices may now be supplied, remembering that each one is to present as melodic a form as is consistent with the harmonic whole, *e. g.*

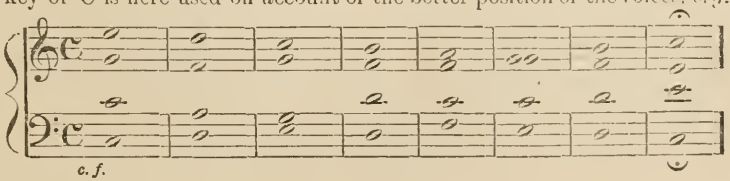
767.



The *c.f.* should in turn be placed in the other voices, and the remaining three parts applied thereto, note against note. We present one more example in this species, in which the *c.f.* appears in the lowest voice, leaving the student to work out similar examples with the *c.f.* in the Alto or Tenor. In Example 768, the Soprano would be the first voice added, and afterward the Alto and Tenor. The *outer* voices, on account of their prominence, should receive the advantage of the first attention.

The key of C is here used on account of the better position of the voices, *e. g.*

768.

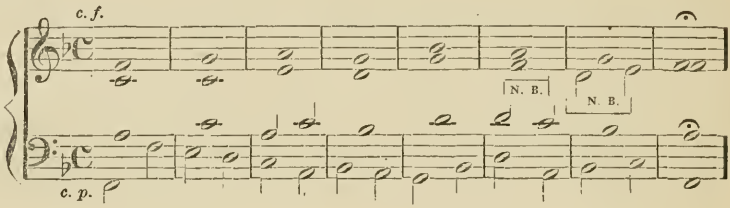


TWO NOTES AGAINST ONE.

In this species, one of the recognized chord-formations is to be used upon the primary accent. The second or unaccented measural-division may be consonant; *i. e.*, an accord-tone of the preceding harmony, or it may be a regular passing-note. Great care must be taken or the progression of this after-note with some other voice or voices to the next chord will be faulty, (parallel octaves, fifths, etc).

For the greater part, Example 769, contains this elaboration in the lowest voice. It also appears, occasionally, in the middle-voices either to avoid faults or to gain such harmonies as will better connect the accented accords, (N.B., 1 and 2.)

769.

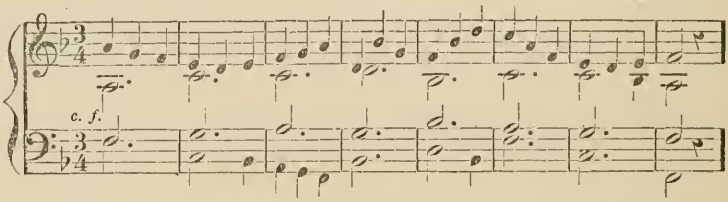


As usual, the *c.f.* should be placed in each voice in turn, and each of the other voices elaborated in the same manner as the Bass in the above example. In this and following species, the *c.f.* having been written down, the elaborated voice is the next to be outlined and the filling-voices afterward added.

THREE NOTES AGAINST ONE.

The same rule prevails respecting the primary accent, while one or both of the other notes may be accord-tones or passing-notes. In this example (770) we place the *c.f.* in the Tenor, and the elaboration in the upper, and occasionally in the other voices:—

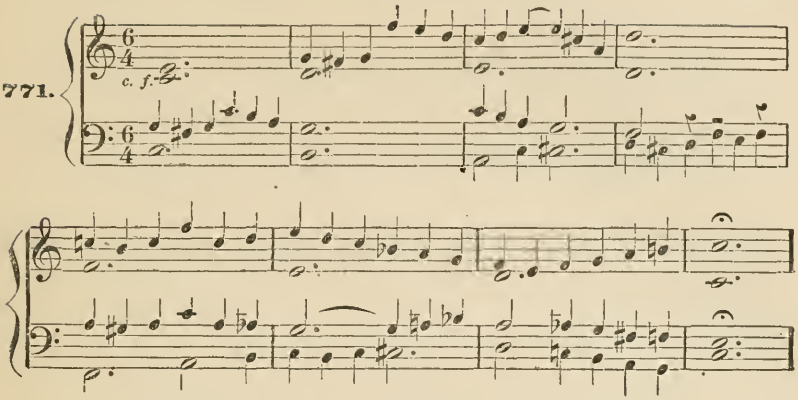
770.



The rules for four, six and eight, or more notes against one, are the same as those already given. Each species should be worked out with the *c.f.*, and a figurated voice in each part alternately. Then, attempts may be made in the imitative style, or in the simultaneous figuration of two or more voices, as for example in the following, in which are set

SIX NOTES AGAINST ONE.

771.

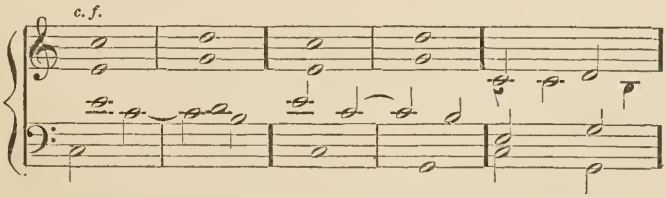


SUSPENSIONS IN FOUR-VOICED MOVEMENTS.

Exercises in suspensions should here follow upon the same *cantus firmi* as given in the table, (page 253); further, the same systematic development is to be pursued as in three-voiced movements, only the field is still wider here on account of the additional voice. Thus, the *c.f.* may appear in each voice in turn, and the suspensions alternately in the other three voices; and, further, each voice may use all the different consonances of the first note of the *c.f.* as preparation-notes. In the following specimens we shall present the *c.f.* in each voice and only one suspension in each of the other parts, leaving the pupil to make use of the remaining consonances.

First, an example with the *c.f.* in the Soprano and suspensions in the Bass, Tenor and Alto:—

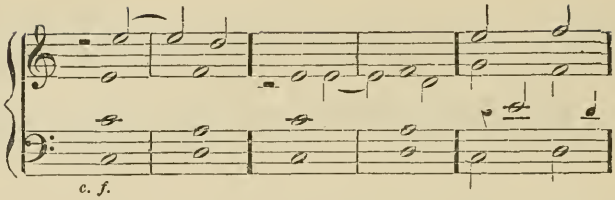
772.



The consonance C is used as the preparation-note in each of the above examples in order to show the different relative positions of the remaining voices thereto. The other consonances to be used here, as preparation-notes, are F and A, (E cannot be used in this capacity, with this *c. f.* in any of the *upper* voices, because its resolution could not be properly effected).

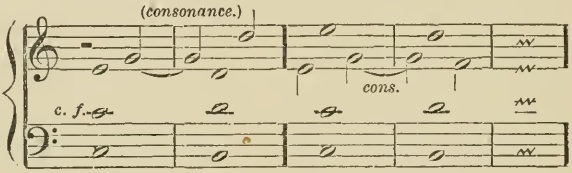
Example 773, employs the *c.f.* as Bass, with suspensions in the other voices, using the consonance E as a preparation-note. Here arise Suspensions of the Ninth. The two voices forming such suspensions must always approach the suspension in *contrary* motion, in order to avoid parallel octaves. The other consonances to be used here, as preparation-notes, are C, G and A.

773.



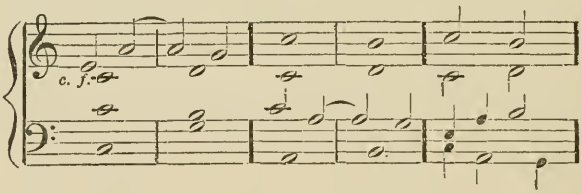
Placing the *c.f.* in the Tenor or Alto, suspensions may be formed above and below upon each consonance except E. The consonances *above* the *c.f.* are C, G and A, and those *below* are C, F and A. For example, the *c. f.* in the Tenor:—

774.



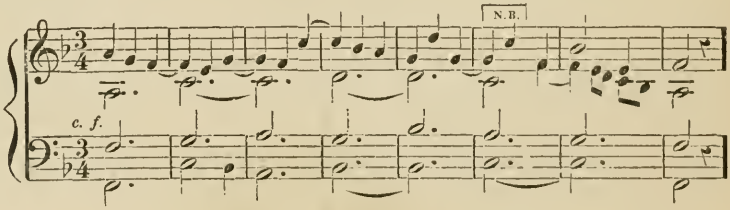
c. f. in the Alto and suspensions above and below:—

775.



Having thoroughly comprehended the preparatory exercises in the art of suspensions in four-voiced movements, their application to a more lengthy *c.f.* should follow, *e. g.*

776.



At N.B., is a reminder that the *bound tone* can spring to any and every accord-tone previous to its regular resolution, (see remarks and examples on this point, page 151).

CHAPTER XXXVIII.

V. MOVEMENTS FOR MORE THAN FOUR VOICES.

It will not be necessary to develop the five,—six,—seven,—or eight-voiced movement so thoroughly as we have the two,—three,—and four-voiced. Those who have an inclination, or the occasion therefor, will have little difficulty in its accomplishment, when, in addition to the preceding, the following suggestions are also observed.

In movements for more than four voices no accord can appear without one or more of its tones being doubled or tripled, and this necessity for duplication naturally increases with every voice additional.

To illustrate the treatment of these added parts, we shall make use of the various chord-successions presented in the Harmony System, beginning with the succession of triads in which the *fundamental falls a third.*

Two essential principles are here, as everywhere, to be italicized, *viz:*

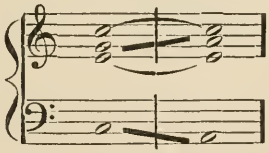
1. *Parallel unisons or octaves are to be used in a composition for two, three, four, or more voices, only when they are intended to form a purely* MELODIC *phrase. In pure* HARMONIC *structure, however, parallel unisons, octaves and fifths, are to be strictly excluded.*

2. *No tone which has a certain determined progression is to be doubled. This excludes the doubling of sevenths, bound dissonances, and the leading-tone, as such.*

Covered octaves and fifths may be given much more liberty than has been allowed in four-voiced movements. The greater fullness of the chords conceals proportionally the lack of purity in the voice-leading.

In a triad-succession, four-voiced, where the *fundamental* falls a third, the voice-leading, as we know, would be as follows:—

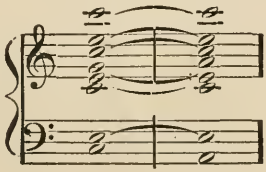
777.



In order to add new voices, without creating faults, it can take place:

I. *Through doubling the connecting-tones, ad libitum, e. g.*

778.



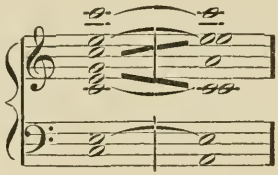
It is deemed unnecessary to give separate examples of the manner in which the above and following chord-successions would appear, five, six, and seven-voiced, etc., the purpose here, being to give an idea how *many* voices can be used and how they are to be treated, leaving the number to be selected from this mass to individual occasion. It is suggested, however, that for the sake of practice, at least a part of the exercises in triad-successions, (pages 78–98), be worked out five-voiced, etc., the same as they were with four voices.

To better manifest the independence of the voices:

II. *Those tones which can remain stationary may be interchanged.*

In the above succession, C and E are stationary tones, therefore, instead of binding them, C may progress to E, and E to C, *e. g.*

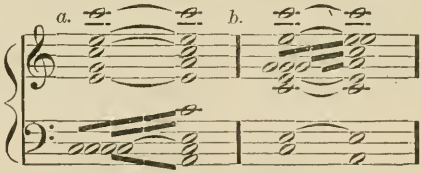
779.



The covered fifths or octaves which result from this manner of treatment, as well as in general, in many-voiced movements, are not to be heeded, especially if they appear in the inner voices.

III. *Voices whose progression is not limited can spring to any tone of the new accord, provided parallel octaves or fifths do not thereby arise, e. g.*

780.

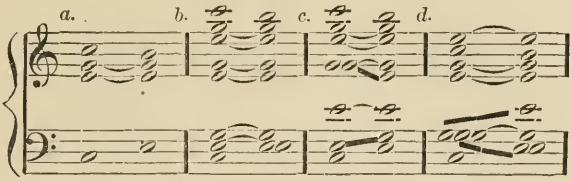


At *a*, Example 780, three voices, starting from C, spring to three different tones, (A, C, E, all the tones of the new accord), while a fourth voice remains stationary. It, of course, rarely occurs that four voices would appear in unison, but the above example not only hints at what could be done in such a case, but also shows what a number of progressions a single voice, occurring in the same position, might have to choose from.

At *b*, of the same example, the G progresses to every tone of the new accord, (A, C, E), but as it is not capable of being used as a connecting-tone, like the C, (at *a*), its manipulation is a trifle less varied. We see here that the progressing tones in a chord-succession may also be reduplicated and move in various directions, provided the progressions of those tones are not limited as is the case with the *seventh, leading-tone,* and *bound dissonances.*

The same things are to be observed in many-voiced triad-successions where the *fundamental rises a third.* An example or two will be sufficient:—

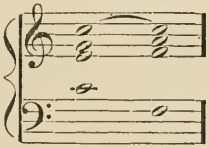
781.



At *a*, Example 781, is given the simple four-voiced succession; at *b*, the stationary tones, only, are doubled; at *c*, two voices interchange; at *d*, are shown some of the various progressions starting from a single tone.

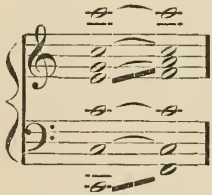
In the next triad-succession the *fundamental* was caused to *fall a fifth.* This yielded but one connecting or stationary tone, the leading of the other voices being as follows:—

782.



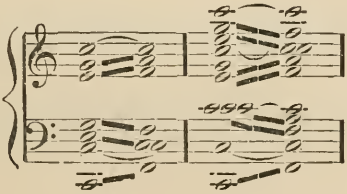
This stationary tone can be re-duplicated at will:—

783.



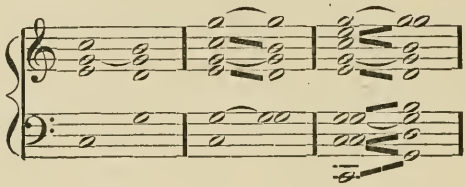
According to the method of treatment explained in connection with Example 780, those tones which can remain stationary, as well as those which must move, may be reduplicated and led in various ways, care being taken to avoid unmelodic progressions, open octaves and fifths. In the application of this treatment to the chord-succession before us, the following will serve as an illustration:—

784.



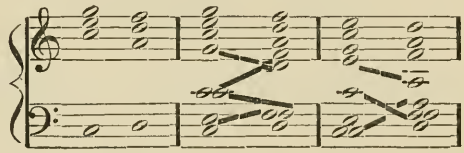
The same conditions prevail and the same manipulation as the above is to be employed when the *fundamental rises a fifth, e. g.*

785.



In triad-successions, where no connecting-tones exist, still more care is necessary in the leading of the voices, as we have already learned. As in such successions, many-voiced, every tone must move to a new place, so every reduplication must be progressed in a different manner from all other reduplications of the same tone. This can be done by leading these voices in contrary motion, or by progressing each one of them to different accord-tones, *e. g.*

786.

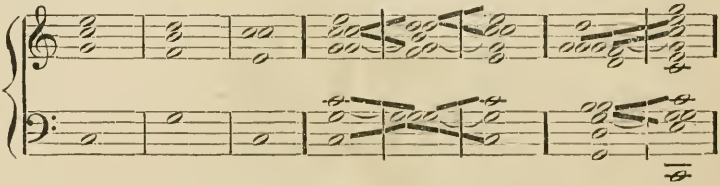


The outer voices in chords not connected should be especially well led. Contrary motion is best adapted thereto. *Seventh accords*, many-voiced, are to be treated exactly as if four-voiced. The original seventh, having a limited progression, can never be doubled.

Remark.—Isolated cases occur where a melodic leading of two voices in oblique or contrary motion causes the temporary duplication of the seventh, but in the pure harmonic structure the genuine doubling of this member *as an accord-tone*, never occurs, since both voices would be obliged to resolve the same way, thereby producing parallel octaves or unisons.

Every other voice of a Seventh accord but the original *seventh*, may be reduplicated and led in the same way as the various parts of a triad, *e. g.*

787.

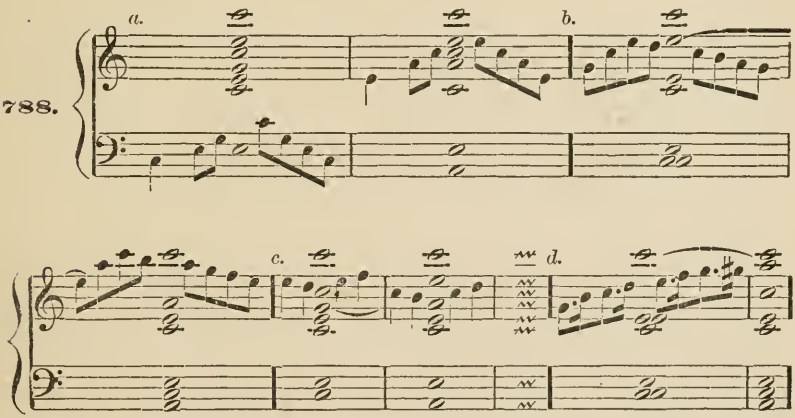


Diminished Seventh accords are to be avoided in many-voiced phrases, because reduplication of its voices generally yields bad-sounding covered octaves or fifths.

Having spoken of the purely *harmonic* treatment of polyphonic successions, a few words will follow here concerning the figurated phase of the same.

IV. Each voice may be figurated through some one or more of the following mediums:—accord-tones, passing-notes, auxiliary-tones, or appoggiaturas; *i.e.*, one or more voices may use the accord-tones in arpeggio form while the remaining voices sustain their respective tones (*a*, Ex. 788), or the spaces between these accord-tones may be filled out with passing-notes, (*b*). Further, the contiguous or auxiliary-tones may be used especially well in ornamenting a stationary tone (*c*); and, lastly, accord-tones or even passing-tones may be ornamented by means of *appoggiaturas* or free dissonances, (*d*).

788.



Even more care is necessary in the above figurative treatment, in order to avoid faulty progressions, than in the chord-successions, and, where the figuration is to be applied simultaneously to two or more voices, the call to caution is still more imperative.

PART IV.

CHAPTER XXXIX.

SYNOPSIS OF COMPOSITION FORMS.

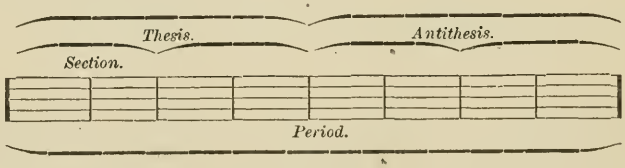
It is the purpose of the present section to enumerate, in a brief manner, the various forms of composition and the fundamental principles to be observed in their construction.

The simplest, most ordinary and most symmetrically sustained is the

SONG FORM.

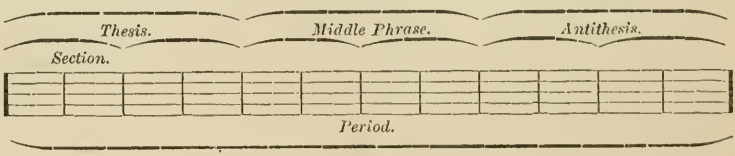
It may be used for one, two, three or more voices, and usually contains two parts, called unitedly a Period, and respectively a Thesis and Antithesis. These latter are, in turn, sub-divided into sections of two or more measures, as for example, in the following scheme:—

789.



A Period, in this Form, often contains three parts, called Thesis, Middle Phrase and Antithesis. The number of measures in each part is indefinite, but an important rule is, that the Middle Phrase shall not be longer than the Thesis, as the symmetrical relation would otherwise be disturbed. The Antithesis may be longer, but never shorter than the Thesis.

790.



The Thesis and Antithesis will naturally revolve themselves, for the greater part, in the principal Key, and the Middle Phrase will oftenest appear in a related Key. Toward the end of the Thesis, a modulation may be made to the Key to be used in the Middle Phrase, and again, near the end of the Middle Phrase, a modulation may be made, leading back to the principal Key, which will be used again in the Antithesis.

SONG WITH ACCOMPANIMENT.

Prior to everything else, the accompaniment is to be the very counterpart of the character of both song and words.

Its form is naturally the same as the song, but, in addition, it usually has a Prelude and Postlude, and, often, Interludes. The Prelude, which should not be too long,—generally two or four measures is sufficient,—is designed to introduce the peculiar character, or tone-colour, of the song itself. To this end, it may use the principal melody, or a motive therefrom, or quite another motive, but of the same character. It may, also, consist of a characteristic accompaniment form.

It is usual to begin the prelude with the principal key, and close it with the Dominant accord, thereby allowing the song to begin in the principal key again. The interlude or passage while the song pauses, and the postlude or coda, are not to employ, as a general thing, new motives. The unity of the whole is not to be disturbed unless a deviation is necessary in order to follow up the character of the song.

DANCE FORM.

A period in this form ordinarily comprises two parts, (Thesis and Antithesis), both of which may be repeated, and the rhythm is usually quite symmetrically sustained.

The second part may be longer than the first, but never shorter. In regard to the *modulation*, the opening measures should establish the principal key through use of the harmonies found in some one of the well-known cadences. The first part may close in this principal key, in which case, the second part will at once commence in the related key, which has been determined for it, finally closing in the principal key, (that used by the first part).

It is still more interesting, if, in the first part, the principal key having been established, a modulation is made closing in the key (often the Dominant) which is to be used by the second part. In this case, part second can touch more remote keys in its modulations, but must, of course, close in the principal key. The Dance Form, usually, has a middle phrase called a Trio. This is sometimes designated in the composition and sometimes not. It appears in a key related to the principal one, that of the Dominant or one related in the third, and has the same form as the principal phrase. It may be as long but not longer than the principal phrase. This latter is of primary consideration, while the *trio* is secondary. This middle phrase should be in the general character of the principal phrase, yet offer interesting rhythmic and modulatory contrasts.

The principal phrase is generally repeated after the *trio;* and, when these two do not stand in smooth melodic and harmonic relation to each other, a short, modulatory interlude may be inserted connecting them.

The same key is very seldom used for the principal phrase and *trio* also; and

the *trio* should not ordinarily appear in the key of the Sub-dominant, as often happens in the compositions of novices. This is rarely to be found in the works of acknowledged masters, and in these isolated instances, a sufficient reason is generally apparent. Further, in most such cases a short modulation follows the *trio* in which the Dominant of the principal key is heard, thus re-instating that principal key, (see, for example, the modulation after the *trio*, in the *Scherzo* in Beethoven's A♮ Sonata, Op. 26). If one phrase appear in C major, for example, and another in the key of its Sub-dominant, (F major), it is not difficult to mistake which is the principal key. If now, the key of the Dominant (G major) is heard, we are not at a loss to discover that C major is the principal, and these others the auxilliary modes.

The composition may end with the repetition of the principal phrase, or a *coda* may still follow, in which the character of the whole piece is to be intensified, or which shall lead more smoothly to the final repose. The coda should not exceed the length of the principal phrase. The important points in compositions of this class are melodic and rhythmic effects.

SCHERZO.

The character of the Scherzo is, in general, bright and joyful. Its form and changes of key can be exactly the same as those of the above-explained Dance Form, but its treatment, or development, is to be more artistic; *i. e.*, more attention is to be given to the manipulation of motives.

The first part (Thesis) of the principal phrase generally makes use of one or two, seldom more, motives; and the second part (Antithesis) rarely adds a new motive, but is rather to treat in freest style those given out in the Thesis.

The *trio* has two parts, a Thesis and Antithesis, both of which are to be treated in a similar manner, and which unitedly are to present a melodic, rhythmic and modulatory contrast to the principal period. This contrast may be gained by means of the treatment of dotted-notes, accompaniment forms, figurations in the various voices, etc., (see *scherzi*, of Beethoven).

After the *trio*, the *Da Capo* follows. It is often written out, in which case it is generally sought to intensify the character of the whole through effective rhythmic, melodic or harmonic alterations.

THE ANDANTE, ADAGIO, AND LARGHETTO,

have also the same form as the *Scherzo*, but differ in character, inasmuch as they are more earnestly sustained.

The *Scherzo* and *Andante*, etc., frequently enter into the construction of the *Sonata*, which will now be briefly described.

THE SONATA,

as well as the instrumental *Duo*, *Trio*, *Quartette*, etc., *Symphony* and *Concerto*, are compositions upon a broader base, being constructed of several parts or pieces of music, all of which unite in the expression of some one defined idea or character.

The succession of these parts, or Movements, as we shall designate them, is generally as follows:—

I. *First movement;* generally in a lively *tempo, Allegro* for example. An introduction may precede the first movement proper.

II. *Second movement;* in a slower *tempo, Andante,* etc.

III. *Third movement; Scherzo,* (used formerly in *Minuett* style, a dignified dance). (The order of II. and III. may be reversed if desired).

IV. *Finale,* or *Rondo.*

Sometimes other parts, not mentioned here, are inserted. For example, *variations* between II. and III., or another *Andante* or *Adagio,* etc., between III. and IV., etc. On the other hand, *Sonatas* frequently contain only one movement, (I.), or two, (I. and IV.), or three, (I., II. and IV).

The *Concerto* appears oftenest in the last-named order, (I., II. and IV.), and while it expresses a defined character, like all compositions of worth, the artistic skill of the virtuoso is also to be given full opportunity for display; brilliant passages and characteristic effects of the peculiar instrument to be employed are not to be forgotten.

In the *first movement* (I.) of a *Sonata,* or similar composition, a clearly defined disposition or frame of mind is to be as clearly enunciated,—tranquil or agitated, joyful or sorrowful, etc. Hence the names often applied:—*Sonata Pathetique, Sonata Appassionata, Symphony Pastorale, Symphony Eroica, Concerto Militaire,* etc.

In the *Scherzo* (II.) or a *Minuett* of livelier *tempo,* the character expressed in the first movement is to be taken up, and its favorable characteristics presented in as bright and joyous a manner as possible.

In the *Andante, Adagio* or *Larghetto* (III.) following, the exact opposite of the *Scherzo* is to be given out; *i. e.,* the character expressed in the first movement, (I.) is to be as earnestly sustained as possible.

In the last movement (IV., *Finale* or *Rondo,*) the result or conclusion of these various phrases is to be proclaimed. Either it is to be brighter and more joyous than all, or more depressed or sorrowful,—in a word, it is to be the intensified expression of the predominating character in the several preceding movements precipitated into one. This much as a synopsis of the *esthetical* phase of the *Sonata,* from which we now turn to give a brief outline of its *technique* or order and plan of development.

FIRST MOVEMENT.

This is divided into two parts, a Thesis and Antithesis, each of which are sub-divided into a Principal, Middle and Closing Phrase or Theme, to which last a Coda is added.

PART 1. (THESIS.)

The Principal Theme, or a simple motive, is to begin the composition in the principal key to be used. This suggestion is always safe to abide by. The

key should be clearly defined before the introduction of foreign harmonies. The principal theme having been given out, a connective passage or interlude is to follow, formed of motives in the preceding theme, or of new ones, at will, modulating to a key related to that used in the principal theme, in which related key a second or Middle Theme is to be given out.

This new theme is to offer a contrast to its predecessor in the way of rhythmic alterations as well as in the change of mode; *i.e.*, it is to present either an agitated, or else a more subdued, voicing of the character expressed in the first theme. Notwithstanding the contrast, a consistent relation should always be traceable, as in grief and consolation, storm and calm. It would be nonsense if a deep religious sentiment were expressed by the first theme, only to be succeeded in the second theme by suggestions of a bacchanalian feast.

Succeeding the *middle theme*, another interlude of suitable character is to be introduced (usually longer than the first, though not necessarily so); leading to another or Closing Theme, still different in rhythm from the others, but in the same related mode as that used in the middle theme. This theme, sometimes long and sometimes very short, closes Part I, of the First movement.

SCHEME OF PART I. FIRST MOVEMENT.

Principal Theme in the principal mode.	Interlude, Modulation.	Middle Theme in a related mode.	Interlude.	Closing Theme, Conclusion in the same mode as the Middle Theme.

Part I, may be repeated or not, at pleasure.

In *Sonatas* of very great scope, the principal, as well as the middle and closing themes, are sometimes again divided into diverse parts, in the same key, but of different rhythm.

These different themes are most surely recognized through the different appearing modes and rhythms, (see scheme).

PART II. (FIRST MOVEMENT, ANTITHESIS.)

In this part, properly no new motives are to appear, but rather the thematic development of those found in Part I. These are to be set in combat, or contest, so to speak, one with the other, and the freest license given to their evolution and to the range of modulation. This having been carried far enough, the complication now clears itself up. A modulation follows, leading back to the principal key, with which the *principal theme* (of Part I.) again enters, followed by the same or a similar interlude to the first; then the *middle theme* again, but this time in the principal key, or, in a key related to that first employed; then the same interlude as at first after the middle theme, succeeded by the *closing theme* of Part I, but now in the principal key.

(It will be self-understood that there is nothing strictly arbitrary here, but that all these parts are subject to more or less variation, abbreviation, or extension.) Now follows a Coda, in which, the character of the whole move-

ment is to be strongly portrayed, and also, in which, remembrances of the most important moments are to be called up, closing naturally in the principal key.

An introduction, generally of slower *tempo*, often precedes this First movement, the character of which should bring the auditor into the proper frame of mind for that which is to follow.

SCHEME OF THE ENTIRE FIRST MOVEMENT OF A SONATA.

PART I.

(Introduction.)	Princ. Theme " Key.	Int., Mod.	Middle Theme. Related Key.	Interlude.	Closing Theme, same key as Middle Theme.	‖

PART II.

‖	Thematic Development.	Mod.	Pr. Theme. " Key.	Interlude.	Middle Theme. Princ., or related Key.	Int.	Closing Theme. Principal Key.	Coda.	‖

REMARK.—A more important *Andante*, *Adagio*, etc., or even *Scherzo*, sometimes have the same form as the above.

Succeeding the above, come other movements; an *Andante* (II.), for example, then a *Scherzo* or *Minuett*, (III.) or *vice versa*, etc., and, lastly,

THE FINALE OR RONDO.

In the *finale*, the result or predominating character of the preceding movements should be declared in the principal theme. All the interludes in this movement are to be reflective of this theme, and all secondary themes are to strive continually towards or cluster around it. It may, therefore, appear an indefinite number of times, according to the length of the movement.

The following synopsis and scheme will serve as a model for a very broadly developed *Finale* or *Rondo*.

First, the principal theme in the principal key, followed by an interlude, and this by the principal theme again. Now comes a connective phrase, leading into a *middle theme* in a related mode; again, a connective phrase leading to a repetition of the principal theme; this is to be succeeded by passages or cadenzas, thematic treatment and modulations, as in the First Movement, leading again to the principal theme in the principal key; now an interlude and the repetition of the middle theme, but this time in the principal or a related key to that first used; another interlude, the principal theme again, passages or cadenzas, and finally a well-developed *closing theme* in which the principal one may again be remembered.

SCHEME OF A RONDO OR FINALE.

Theme. Princ. Key.	Interlude.	Theme.	Interlude.	Middle Th. Related Key.	Inter.	Theme. Princ. Key.	Inter.	Thematic treatment. Modulations.			
Theme.	Interlude.	Middle Theme in principal or related Key.	Interlude.	Theme principal Key.	Interlude.	Closing Theme. Reminder of Principal Theme.					

In less important *Rondos* the principal theme need not occur so frequently as in the above scheme. The interludes will fall away proportionately, the thematic development and one of the occurrences of the middle theme may be omitted. *Rondos* are to be found in which a middle theme is only hinted at.

As a *Sonata* means nothing more than a piece of instrumental music, so the succession above given may be quite altered.

There are *Sonatas* in which the First movement is a *Theme with Variations*, (for example, Beethoven's *A♭ Sonata*, Op. 26), or an *Adagio*, (Op. 27, No. 2, in C♯ Minor, Beethoven), or, in which the last movement is a *Theme with Variations*, (E Major, Op. 109, Beethoven), etc.

The form given above, however, is the most practical, and the one oftenest used.

When the pupil desires to set himself at work to compose a *Sonata*, the best of all plans is to take, as a model, one of the *Sonatas* of Beethoven, not simply to follow or imitate measure for measure, but to work according to the form or general outline thereof,—the entrance of the themes, their development, the formation of the passages or interludes, the modulations, etc.

THE OVERTURE TO AN OPERA OR DRAMA.

The purpose of the *Overture* is to foreshadow the character, or tone-colour. of the succeeding *Opera* or *Drama*.

Its form is frequently identical with that of the first movement of a *Sonata*, with an Introduction, and its themes, in the case of the *Opera*, are generally those which are afterward heard in the Opera itself.

VARIATIONS.

The term means alterations. As a foundation, it is usual to take a simple expressive theme, frequently of two parts of eight measures each. An Introduction often precedes, and the variations are always to retain the tone-colour of the theme, but in a more subdued or more intensified voicing.

The variations are to be effected as follows:—

I. In the Melody.	III. In the Meter and Rhythm.
II. In the Harmony.	IV. In the Key.

I. (1) *The melody or theme*, which may appear in any of the voices, oftenest, however, in the upper voice, may be made milder, more expressive; (2) it can be ornamented to any extent; (3) it may be divided or cut up into continuous passage forms; (4) the various voices may alternate or answer each other in these figurated passages.

II. *Harmony.* (1) To the given melody a new *harmony* can be applied. (2) The melody may be placed in other voices and still other harmonies used.

III. *Meter and Rhythm.* (1) A three-part meter can be changed to $\frac{4}{4}$ or $\frac{6}{8}$, and *vice versa*, etc. (2) The rhythm of the theme may be enlivened or made more sedate, even to the extremest points.

IV. *Key, etc.* A theme given out in major may be varied in related minor modes, and *vice versa.*

Further, variations can be effected through use of the various technical characteristics of the instrument employed. The whole or a part of the theme may be used as a subject for Canons or Fugues.

Finally, as a last variation, the theme, harmonically and rhythmically decorated, may form the principal theme for an extended *Finale* or *Rondo.*

In Variations, as well as in all compositions, of artistic worth, a defined, united character or voicing must never be wanting. A composition in which the character changes abruptly, as in a *potpourri*, has no artistic value.

CHAPTER XL.

CONCERNING THE MODULATIONS OR CHANGES OF KEY IN A COMPOSITION.

It is always well at the beginning of a composition, to firmly establish the mode to be used. At the end, we should feel that the piece has arrived at a perfect repose in the *same key.* It is against all sound sense to begin and end a composition in different keys, and yet, numerous examples of this kind are not difficult to find. In the midst of a composition, there should appear, at least, one modulatory phrase. This is most frequently to the Key of the Dominant,—in major to the *major* Dominant, and in minor to the major or *minor* (the last is the best) Dominant.

In shorter pieces, for example, Folk songs, this modulation is sometimes only indicated by the Dominant accord.

In compositions of somewhat greater importance, the modulation may touch all the next-related modes, as per following scheme, C major being regarded as the principal mode:—

(D)—F—A—C—E—G

Here, we would again remind the pupil that a Trio or Middle Theme should not ordinarily appear in the Key of the Sub-dominant. This, however, does not hinder the transient appearance of this key in the course of the modulation.

In compositions, where the principal mode is broadly presented at the beginning and end, the modulation may extend to still more distant keys.

We have already mentioned the modes related in the third and fifth. To these we will now add the similar-named modes.

In C major we must add to those above given, A and E major, F minor, (G minor is too foreign to be counted in this grade of relationship), and C minor, also the modes related in the third to the last,—A♭ and E♭ major, (see scheme).

RELATED MODES TO C MAJOR.

A E
(D)—F—A—C—E—G—..... or....F—A♭—C—E♭—G.
C

RELATED MODES TO A MINOR.

A
D—F—A—C—E (G).....or....D—F♯—A—C♯—E.
F C

The relationships of a mode seem to divide themselves into two sides, according to the above schemes, and it is not always judicious to cause the modulation to touch first one side and then the other. For example, it would not be acceptable if the Middle Theme in the first movement of a Sonata appeared first in E major and afterward in A♭ major, (rather A major), as these keys are not directly related.

Finally, in compositions, of extraordinary breadth, all modes may be touched provided, that they follow each other in rational order, not like C major, F♯ minor, E♭ major, etc, but rather in thirds and fifths, as above explained. We have said that these various modes may be *touched*. We mean by that to guard against the important or extended appearance of *too* many, as this would only cause confusion and disaster to the entire composition.

In conclusion, we would repeat the well-known maxim:—

"PROVE ALL THINGS AND HOLD FAST THAT WHICH IS BEST."

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